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Table 1. Journal of observations

| Dates            | filter | Time<br>(s) | FWHM<br>(arcsec) | Air Mass |
|------------------|--------|-------------|------------------|----------|
| Las Campanas:    |        |             |                  |          |
| NGC 6822 West:   |        |             |                  |          |
| 1999 Oct 2.....  | R      | 3×480       | 2.5              | 1.06     |
| 1999 Oct 2.....  | TiO    | 4×900       | 2.0              | 1.17     |
| 1999 Oct 2.....  | CN     | 3×900       | 2.0              | 1.50     |
| 1999 Oct 3.....  | R      | 480         | 1.6              | 1.32     |
| 1999 Oct 3.....  | CN     | 900         | 1.7              | 1.49     |
| 1999 Oct 3.....  | TiO    | 2×900       | 1.7              | 1.54     |
| NGC 6822 East:   |        |             |                  |          |
| 1999 Oct 3.....  | R      | 3×480       | 1.7              | 1.04     |
| 1999 Oct 3.....  | TiO    | 3×900       | 2.2              | 1.09     |
| 1999 Oct 3.....  | CN     | 3×900       | 1.7              | 1.21     |
| CFH12K:          |        |             |                  |          |
| 2000 Sep 24..... | I      | 300         | 1.0              | 1.22     |
| 2000 Sep 24..... | R      | 400         | 0.7              | 1.22     |
| 2000 Sep 24..... | CN     | 1500        | 0.7              | 1.23     |
| 2000 Sep 24..... | TiO    | 1500        | 0.8              | 1.26     |

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Table 2. C stars in NGC 6822

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c001 | 19:43:52.57 | –14:40:58.8 | 18.724 | 0.006      | 1.214 | 0.009          | 0.469  | 0.013             |
| c002 | 19:43:52.69 | –14:41:40.0 | 18.998 | 0.007      | 1.147 | 0.010          | 0.424  | 0.013             |
| c003 | 19:43:56.96 | –14:43:01.8 | 19.280 | 0.008      | 1.419 | 0.013          | 0.457  | 0.016             |
| c004 | 19:43:54.52 | –14:43:35.5 | 19.667 | 0.010      | 1.255 | 0.015          | 0.423  | 0.023             |
| c005 | 19:43:58.53 | –14:37:44.2 | 20.745 | 0.022      | 1.624 | 0.046          | 0.403  | 0.043             |
| c006 | 19:44:28.08 | –14:37:58.2 | 18.163 | 0.005      | 1.177 | 0.008          | 0.371  | 0.009             |
| c007 | 19:44:19.70 | –14:40:59.5 | 18.420 | 0.005      | 1.175 | 0.007          | 0.504  | 0.010             |
| c008 | 19:44:02.54 | –14:44:40.1 | 18.458 | 0.005      | 1.257 | 0.008          | 0.531  | 0.011             |
| c009 | 19:44:21.12 | –14:44:24.2 | 18.542 | 0.006      | 1.266 | 0.009          | 0.370  | 0.011             |
| c010 | 19:44:10.33 | –14:46:55.1 | 18.724 | 0.006      | 1.425 | 0.011          | 0.520  | 0.012             |
| c011 | 19:44:01.93 | –14:41:09.6 | 19.047 | 0.008      | 1.300 | 0.013          | 0.453  | 0.014             |
| c012 | 19:44:26.58 | –14:43:32.7 | 19.023 | 0.007      | 1.480 | 0.012          | 0.456  | 0.014             |
| c013 | 19:44:26.36 | –14:43:29.3 | 19.110 | 0.008      | 1.141 | 0.012          | 0.334  | 0.015             |
| c014 | 19:44:18.81 | –14:47:21.9 | 19.027 | 0.007      | 1.513 | 0.012          | 0.497  | 0.014             |
| c015 | 19:44:19.68 | –14:45:04.2 | 19.095 | 0.010      | 1.314 | 0.016          | 0.448  | 0.017             |
| c016 | 19:44:26.55 | –14:45:41.3 | 19.079 | 0.010      | 1.629 | 0.018          | 0.498  | 0.020             |
| c017 | 19:44:17.54 | –14:48:04.8 | 19.145 | 0.010      | 1.109 | 0.014          | 0.450  | 0.017             |
| c018 | 19:44:20.37 | –14:46:51.1 | 19.150 | 0.008      | 1.280 | 0.014          | 0.502  | 0.017             |
| c019 | 19:44:24.86 | –14:43:22.6 | 19.151 | 0.009      | 1.273 | 0.014          | 0.481  | 0.020             |
| c020 | 19:44:05.09 | –14:47:47.6 | 19.126 | 0.008      | 1.476 | 0.014          | 0.475  | 0.014             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c021 | 19:44:23.81 | –14:42:29.6 | 19.187 | 0.012      | 1.171 | 0.015          | 0.454  | 0.015             |
| c022 | 19:44:19.90 | –14:41:10.6 | 19.207 | 0.008      | 1.276 | 0.012          | 0.499  | 0.016             |
| c023 | 19:44:15.44 | –14:44:09.4 | 19.219 | 0.008      | 1.316 | 0.013          | 0.491  | 0.017             |
| c024 | 19:44:09.71 | –14:36:26.1 | 19.261 | 0.009      | 1.147 | 0.013          | 0.436  | 0.017             |
| c025 | 19:44:27.63 | –14:46:09.5 | 19.170 | 0.009      | 1.594 | 0.015          | 0.547  | 0.018             |
| c026 | 19:44:24.89 | –14:43:28.7 | 19.214 | 0.009      | 1.804 | 0.017          | 0.424  | 0.016             |
| c027 | 19:44:12.33 | –14:43:36.5 | 19.296 | 0.009      | 1.560 | 0.016          | 0.415  | 0.017             |
| c028 | 19:44:04.70 | –14:47:07.9 | 19.420 | 0.010      | 1.127 | 0.014          | 0.304  | 0.018             |
| c029 | 19:44:27.08 | –14:46:33.1 | 19.390 | 0.010      | 1.394 | 0.017          | 0.537  | 0.020             |
| c030 | 19:44:03.10 | –14:44:24.1 | 19.361 | 0.016      | 1.384 | 0.020          | 0.449  | 0.018             |
| c031 | 19:44:18.59 | –14:46:58.2 | 19.408 | 0.010      | 1.356 | 0.015          | 0.440  | 0.018             |
| c032 | 19:44:26.56 | –14:47:25.1 | 19.462 | 0.011      | 1.302 | 0.019          | 0.474  | 0.021             |
| c033 | 19:44:22.14 | –14:46:24.8 | 19.393 | 0.009      | 1.559 | 0.018          | 0.372  | 0.089             |
| c034 | 19:44:25.49 | –14:46:01.0 | 19.475 | 0.012      | 1.183 | 0.017          | 0.425  | 0.020             |
| c035 | 19:44:25.16 | –14:36:22.4 | 19.529 | 0.010      | 1.110 | 0.015          | 0.306  | 0.020             |
| c036 | 19:44:18.21 | –14:42:42.7 | 19.546 | 0.009      | 1.158 | 0.015          | 0.373  | 0.021             |
| c037 | 19:44:24.04 | –14:47:10.5 | 19.514 | 0.015      | 1.618 | 0.021          | 0.586  | 0.019             |
| c038 | 19:44:26.55 | –14:41:35.6 | 19.568 | 0.012      | 1.426 | 0.019          | 0.670  | 0.022             |
| c039 | 19:44:26.33 | –14:44:25.8 | 19.414 | 0.022      | 1.560 | 0.030          | 0.766  | 0.031             |
| c040 | 19:44:22.48 | –14:46:25.2 | 19.776 | 0.015      | 1.212 | 0.022          | 0.554  | 0.027             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c041 | 19:44:25.51 | –14:40:36.6 | 19.951 | 0.013      | 1.111 | 0.021          | 0.423  | 0.025             |
| c042 | 19:44:13.70 | –14:40:10.9 | 20.677 | 0.024      | 1.972 | 0.058          | 0.353  | 0.046             |
| c043 | 19:44:54.39 | –14:45:01.6 | 17.933 | 0.005      | 1.482 | 0.010          | 0.511  | 0.010             |
| c044 | 19:44:53.78 | –14:47:51.2 | 18.206 | 0.013      | 1.260 | 0.026          | 0.514  | 0.027             |
| c045 | 19:44:53.53 | –14:45:59.2 | 18.259 | 0.015      | 1.558 | 0.029          | 0.522  | 0.019             |
| c046 | 19:44:53.21 | –14:44:18.5 | 18.335 | 0.010      | 1.400 | 0.021          | 0.594  | 0.019             |
| c047 | 19:44:43.08 | –14:45:10.1 | 18.327 | 0.005      | 1.313 | 0.010          | 0.495  | 0.011             |
| c048 | 19:44:49.19 | –14:45:36.2 | 18.454 | 0.010      | 1.194 | 0.016          | 0.475  | 0.021             |
| c049 | 19:44:47.47 | –14:48:07.9 | 18.525 | 0.009      | 1.421 | 0.016          | 0.537  | 0.018             |
| c050 | 19:44:54.17 | –14:45:20.5 | 18.566 | 0.008      | 1.188 | 0.012          | 0.416  | 0.013             |
| c051 | 19:44:43.21 | –14:45:02.6 | 18.595 | 0.007      | 1.108 | 0.011          | 0.457  | 0.015             |
| c052 | 19:44:49.43 | –14:47:37.7 | 18.499 | 0.031      | 1.195 | 0.039          | 0.457  | 0.025             |
| c053 | 19:44:50.13 | –14:46:11.2 | 18.658 | 0.029      | 1.262 | 0.054          | 0.378  | 0.043             |
| c054 | 19:44:52.81 | –14:44:27.7 | 18.596 | 0.006      | 1.426 | 0.011          | 0.566  | 0.013             |
| c055 | 19:44:44.88 | –14:43:28.4 | 18.682 | 0.006      | 1.342 | 0.011          | 0.517  | 0.013             |
| c056 | 19:44:44.66 | –14:46:42.7 | 18.736 | 0.011      | 1.337 | 0.018          | 0.472  | 0.020             |
| c057 | 19:44:56.15 | –14:40:16.7 | 18.751 | 0.007      | 1.102 | 0.011          | 0.356  | 0.013             |
| c058 | 19:44:51.47 | –14:47:07.1 | 18.693 | 0.009      | 1.561 | 0.018          | 0.563  | 0.021             |
| c059 | 19:44:43.05 | –14:44:33.1 | 18.847 | 0.009      | 1.262 | 0.018          | 0.384  | 0.018             |
| c060 | 19:44:30.47 | –14:47:22.4 | 18.796 | 0.007      | 1.612 | 0.016          | 0.499  | 0.013             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c061 | 19:44:53.06 | –14:47:48.6 | 18.903 | 0.013      | 1.315 | 0.021          | 0.461  | 0.022             |
| c062 | 19:44:49.69 | –14:47:08.3 | 18.897 | 0.012      | 1.274 | 0.021          | 0.458  | 0.021             |
| c063 | 19:44:38.26 | –14:46:03.2 | 18.857 | 0.015      | 1.372 | 0.026          | 0.338  | 0.028             |
| c064 | 19:44:55.34 | –14:47:02.9 | 18.948 | 0.014      | 1.276 | 0.026          | 0.488  | 0.027             |
| c065 | 19:44:56.27 | –14:46:02.8 | 18.881 | 0.010      | 1.342 | 0.020          | 0.574  | 0.023             |
| c066 | 19:44:54.81 | –14:46:36.3 | 18.868 | 0.007      | 1.299 | 0.014          | 0.507  | 0.016             |
| c067 | 19:44:32.34 | –14:40:37.1 | 18.838 | 0.007      | 1.348 | 0.012          | 0.437  | 0.014             |
| c068 | 19:44:41.43 | –14:36:59.0 | 18.895 | 0.007      | 1.268 | 0.011          | 0.396  | 0.013             |
| c069 | 19:44:40.90 | –14:47:54.7 | 18.940 | 0.022      | 1.327 | 0.040          | 0.491  | 0.046             |
| c070 | 19:44:37.38 | –14:44:44.1 | 18.899 | 0.007      | 1.375 | 0.013          | 0.472  | 0.016             |
| c071 | 19:44:54.54 | –14:45:28.1 | 18.970 | 0.011      | 1.274 | 0.025          | 0.531  | 0.019             |
| c072 | 19:44:43.95 | –14:45:46.2 | 18.940 | 0.010      | 1.510 | 0.022          | 0.515  | 0.020             |
| c073 | 19:44:33.19 | –14:43:23.3 | 18.893 | 0.008      | 1.449 | 0.015          | 0.489  | 0.015             |
| c074 | 19:44:35.73 | –14:47:14.3 | 18.871 | 0.007      | 1.575 | 0.014          | 0.565  | 0.016             |
| c075 | 19:44:56.63 | –14:44:35.6 | 18.928 | 0.008      | 1.271 | 0.013          | 0.550  | 0.017             |
| c076 | 19:44:54.25 | –14:40:26.0 | 18.969 | 0.008      | 1.167 | 0.013          | 0.403  | 0.015             |
| c077 | 19:44:36.54 | –14:47:17.6 | 18.953 | 0.012      | 1.194 | 0.017          | 0.372  | 0.020             |
| c078 | 19:44:56.32 | –14:45:01.0 | 18.964 | 0.029      | 1.132 | 0.034          | 0.329  | 0.033             |
| c079 | 19:44:50.95 | –14:46:27.5 | 18.958 | 0.010      | 1.544 | 0.020          | 0.384  | 0.017             |
| c080 | 19:44:56.35 | –14:43:15.9 | 18.969 | 0.009      | 1.312 | 0.015          | 0.521  | 0.020             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c081 | 19:44:52.99 | –14:48:02.2 | 19.046 | 0.016      | 1.248 | 0.035          | 0.513  | 0.040             |
| c082 | 19:44:52.23 | –14:47:07.1 | 18.929 | 0.017      | 1.261 | 0.021          | 0.549  | 0.023             |
| c083 | 19:44:47.84 | –14:47:56.3 | 19.051 | 0.010      | 1.278 | 0.018          | 0.514  | 0.018             |
| c084 | 19:44:49.71 | –14:44:41.8 | 18.863 | 0.017      | 1.487 | 0.022          | 0.718  | 0.022             |
| c085 | 19:44:56.69 | –14:47:51.3 | 19.088 | 0.015      | 1.148 | 0.021          | 0.475  | 0.027             |
| c086 | 19:44:38.78 | –14:47:35.7 | 19.048 | 0.011      | 1.326 | 0.022          | 0.478  | 0.019             |
| c087 | 19:44:54.85 | –14:47:31.6 | 19.068 | 0.010      | 1.346 | 0.020          | 0.402  | 0.018             |
| c088 | 19:44:43.05 | –14:41:17.1 | 19.037 | 0.007      | 1.142 | 0.011          | 0.366  | 0.025             |
| c089 | 19:44:56.83 | –14:40:15.3 | 19.046 | 0.010      | 1.278 | 0.017          | 0.362  | 0.018             |
| c090 | 19:44:42.96 | –14:46:45.9 | 19.093 | 0.015      | 1.343 | 0.032          | 0.478  | 0.028             |
| c091 | 19:44:57.12 | –14:44:56.6 | 19.043 | 0.017      | 1.333 | 0.027          | 0.428  | 0.029             |
| c092 | 19:44:29.15 | –14:40:45.6 | 19.054 | 0.008      | 1.208 | 0.012          | 0.379  | 0.014             |
| c093 | 19:44:50.06 | –14:44:39.3 | 19.075 | 0.009      | 1.304 | 0.015          | 0.482  | 0.018             |
| c094 | 19:44:31.08 | –14:47:22.6 | 19.087 | 0.010      | 1.220 | 0.019          | 0.396  | 0.023             |
| c095 | 19:44:46.48 | –14:40:41.8 | 19.077 | 0.007      | 1.219 | 0.011          | 0.401  | 0.017             |
| c096 | 19:44:48.04 | –14:46:48.3 | 19.078 | 0.019      | 1.544 | 0.035          | 0.463  | 0.037             |
| c097 | 19:44:54.94 | –14:43:28.8 | 18.981 | 0.009      | 1.672 | 0.017          | 0.516  | 0.018             |
| c098 | 19:44:43.61 | –14:45:27.3 | 19.110 | 0.009      | 1.167 | 0.016          | 0.398  | 0.017             |
| c099 | 19:44:40.29 | –14:45:15.3 | 19.069 | 0.008      | 1.375 | 0.015          | 0.513  | 0.016             |
| c100 | 19:44:36.27 | –14:43:37.1 | 19.084 | 0.008      | 1.334 | 0.014          | 0.495  | 0.017             |



Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c101 | 19:44:53.45 | –14:47:39.8 | 19.112 | 0.010      | 1.195 | 0.016          | 0.429  | 0.019             |
| c102 | 19:44:53.37 | –14:46:55.4 | 19.139 | 0.012      | 1.237 | 0.020          | 0.498  | 0.023             |
| c103 | 19:44:34.56 | –14:42:09.0 | 19.153 | 0.008      | 1.271 | 0.021          | 0.493  | 0.016             |
| c104 | 19:44:38.65 | –14:47:43.3 | 19.032 | 0.014      | 1.504 | 0.022          | 0.530  | 0.025             |
| c105 | 19:44:38.31 | –14:47:57.8 | 19.070 | 0.008      | 1.384 | 0.013          | 0.477  | 0.015             |
| c106 | 19:44:44.36 | –14:43:03.9 | 19.099 | 0.007      | 1.335 | 0.012          | 0.429  | 0.016             |
| c107 | 19:44:55.16 | –14:45:58.7 | 19.136 | 0.011      | 1.373 | 0.021          | 0.513  | 0.024             |
| c108 | 19:44:52.23 | –14:47:15.6 | 19.108 | 0.010      | 1.341 | 0.018          | 0.467  | 0.020             |
| c109 | 19:44:41.46 | –14:44:59.8 | 19.148 | 0.016      | 1.423 | 0.028          | 0.381  | 0.038             |
| c110 | 19:44:38.43 | –14:42:52.5 | 19.154 | 0.009      | 1.654 | 0.020          | 0.442  | 0.021             |
| c111 | 19:44:49.23 | –14:46:34.8 | 19.184 | 0.010      | 1.611 | 0.025          | 0.386  | 0.023             |
| c112 | 19:44:35.48 | –14:47:11.1 | 19.167 | 0.013      | 1.240 | 0.020          | 0.333  | 0.023             |
| c113 | 19:44:31.61 | –14:45:33.3 | 19.191 | 0.010      | 1.159 | 0.016          | 0.352  | 0.023             |
| c114 | 19:44:51.11 | –14:47:00.0 | 19.230 | 0.011      | 1.105 | 0.020          | 0.341  | 0.022             |
| c115 | 19:44:50.52 | –14:47:53.3 | 19.161 | 0.010      | 1.268 | 0.018          | 0.452  | 0.021             |
| c116 | 19:44:52.89 | –14:47:59.0 | 19.126 | 0.015      | 1.801 | 0.030          | 0.353  | 0.028             |
| c117 | 19:44:44.66 | –14:47:26.5 | 19.118 | 0.009      | 1.413 | 0.015          | 0.502  | 0.017             |
| c118 | 19:44:38.41 | –14:48:06.6 | 19.184 | 0.012      | 1.173 | 0.019          | 0.314  | 0.019             |
| c119 | 19:44:49.29 | –14:44:59.4 | 19.200 | 0.010      | 1.356 | 0.021          | 0.478  | 0.020             |
| c120 | 19:44:45.71 | –14:38:30.4 | 19.177 | 0.009      | 1.196 | 0.012          | 0.366  | 0.016             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c121 | 19:44:49.95 | –14:47:49.0 | 19.241 | 0.015      | 1.138 | 0.023          | 0.338  | 0.027             |
| c122 | 19:44:52.95 | –14:43:29.2 | 19.186 | 0.010      | 1.207 | 0.015          | 0.371  | 0.017             |
| c123 | 19:44:43.55 | –14:43:24.8 | 19.242 | 0.009      | 1.195 | 0.017          | 0.420  | 0.018             |
| c124 | 19:44:37.45 | –14:41:14.9 | 19.153 | 0.007      | 1.506 | 0.014          | 0.426  | 0.015             |
| c125 | 19:44:52.93 | –14:46:47.8 | 19.107 | 0.024      | 1.495 | 0.029          | 0.553  | 0.027             |
| c126 | 19:44:41.65 | –14:47:33.2 | 19.183 | 0.009      | 1.432 | 0.016          | 0.436  | 0.019             |
| c127 | 19:44:53.53 | –14:45:14.9 | 19.225 | 0.013      | 1.286 | 0.020          | 0.507  | 0.026             |
| c128 | 19:44:51.83 | –14:47:29.7 | 19.241 | 0.027      | 1.201 | 0.037          | 0.581  | 0.029             |
| c129 | 19:44:55.04 | –14:46:58.2 | 19.338 | 0.012      | 1.222 | 0.026          | 0.460  | 0.030             |
| c130 | 19:44:54.94 | –14:43:12.3 | 19.254 | 0.008      | 1.316 | 0.019          | 0.405  | 0.018             |
| c131 | 19:44:45.28 | –14:40:10.9 | 19.241 | 0.008      | 1.318 | 0.014          | 0.450  | 0.017             |
| c132 | 19:44:57.40 | –14:43:28.3 | 19.189 | 0.013      | 1.714 | 0.023          | 0.393  | 0.021             |
| c133 | 19:44:37.14 | –14:45:32.4 | 19.244 | 0.008      | 1.310 | 0.015          | 0.516  | 0.017             |
| c134 | 19:44:53.32 | –14:47:47.6 | 19.244 | 0.010      | 1.363 | 0.016          | 0.486  | 0.019             |
| c135 | 19:44:54.87 | –14:48:14.4 | 19.289 | 0.018      | 1.459 | 0.042          | 0.622  | 0.035             |
| c136 | 19:44:54.05 | –14:42:45.5 | 19.331 | 0.015      | 1.288 | 0.023          | 0.481  | 0.023             |
| c137 | 19:44:45.79 | –14:44:34.5 | 19.189 | 0.008      | 1.635 | 0.015          | 0.463  | 0.018             |
| c138 | 19:44:30.61 | –14:44:01.1 | 19.283 | 0.011      | 1.171 | 0.014          | 0.311  | 0.017             |
| c139 | 19:44:43.88 | –14:44:31.4 | 19.317 | 0.010      | 1.276 | 0.022          | 0.301  | 0.019             |
| c140 | 19:44:48.73 | –14:47:15.9 | 19.272 | 0.011      | 1.299 | 0.019          | 0.528  | 0.023             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c141 | 19:44:51.55 | –14:47:15.5 | 19.319 | 0.011      | 1.421 | 0.029          | 0.523  | 0.028             |
| c142 | 19:44:55.28 | –14:47:32.2 | 19.340 | 0.021      | 1.154 | 0.035          | 0.768  | 0.036             |
| c143 | 19:44:53.86 | –14:44:28.8 | 19.279 | 0.014      | 1.209 | 0.023          | 0.492  | 0.026             |
| c144 | 19:44:52.53 | –14:48:08.2 | 19.303 | 0.015      | 1.287 | 0.024          | 0.462  | 0.025             |
| c145 | 19:44:44.07 | –14:46:20.1 | 19.298 | 0.010      | 1.581 | 0.025          | 0.377  | 0.023             |
| c146 | 19:44:55.21 | –14:44:36.1 | 19.338 | 0.019      | 1.320 | 0.045          | 0.512  | 0.026             |
| c147 | 19:44:43.10 | –14:44:13.0 | 19.033 | 0.025      | 1.772 | 0.030          | 0.436  | 0.046             |
| c148 | 19:44:48.05 | –14:47:21.6 | 19.326 | 0.015      | 1.342 | 0.027          | 0.402  | 0.032             |
| c149 | 19:44:55.34 | –14:44:34.1 | 19.314 | 0.013      | 1.129 | 0.019          | 0.448  | 0.023             |
| c150 | 19:44:48.91 | –14:41:53.9 | 19.260 | 0.010      | 1.480 | 0.015          | 0.449  | 0.017             |
| c151 | 19:44:48.61 | –14:46:24.9 | 19.305 | 0.016      | 1.390 | 0.024          | 0.454  | 0.024             |
| c152 | 19:44:34.66 | –14:44:18.9 | 19.285 | 0.016      | 1.396 | 0.024          | 0.485  | 0.032             |
| c153 | 19:44:53.48 | –14:42:36.5 | 19.215 | 0.017      | 1.338 | 0.021          | 0.503  | 0.021             |
| c154 | 19:44:37.35 | –14:46:39.5 | 19.319 | 0.010      | 1.234 | 0.016          | 0.452  | 0.020             |
| c155 | 19:44:36.37 | –14:39:24.5 | 19.309 | 0.009      | 1.309 | 0.013          | 0.485  | 0.019             |
| c156 | 19:44:37.56 | –14:45:32.2 | 19.339 | 0.012      | 1.280 | 0.020          | 0.497  | 0.027             |
| c157 | 19:44:40.84 | –14:41:47.5 | 19.371 | 0.010      | 1.268 | 0.019          | 0.475  | 0.020             |
| c158 | 19:44:55.33 | –14:46:49.9 | 19.400 | 0.017      | 1.271 | 0.027          | 0.453  | 0.029             |
| c159 | 19:44:54.99 | –14:46:51.7 | 19.401 | 0.015      | 1.390 | 0.031          | 0.532  | 0.028             |
| c160 | 19:44:46.29 | –14:47:56.8 | 19.312 | 0.015      | 1.673 | 0.028          | 0.389  | 0.025             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c161 | 19:44:50.59 | –14:47:33.6 | 19.409 | 0.016      | 1.339 | 0.032          | 0.513  | 0.026             |
| c162 | 19:44:52.40 | –14:47:51.4 | 19.409 | 0.021      | 1.106 | 0.029          | 0.485  | 0.038             |
| c163 | 19:44:51.81 | –14:47:45.1 | 19.386 | 0.020      | 1.713 | 0.048          | 0.379  | 0.041             |
| c164 | 19:44:42.93 | –14:47:22.0 | 19.397 | 0.011      | 1.416 | 0.019          | 0.847  | 0.023             |
| c165 | 19:44:52.01 | –14:47:47.1 | 19.417 | 0.013      | 1.596 | 0.031          | 0.422  | 0.024             |
| c166 | 19:44:52.69 | –14:40:08.5 | 19.420 | 0.015      | 1.207 | 0.027          | 0.425  | 0.024             |
| c167 | 19:44:57.25 | –14:47:42.5 | 19.426 | 0.017      | 1.344 | 0.029          | 0.608  | 0.028             |
| c168 | 19:44:48.02 | –14:42:21.9 | 19.385 | 0.013      | 1.353 | 0.018          | 0.537  | 0.019             |
| c169 | 19:44:42.87 | –14:46:35.7 | 19.421 | 0.010      | 1.287 | 0.017          | 0.501  | 0.020             |
| c170 | 19:44:53.64 | –14:44:29.5 | 19.392 | 0.013      | 1.379 | 0.018          | 0.451  | 0.021             |
| c171 | 19:44:42.49 | –14:42:36.7 | 19.456 | 0.011      | 1.248 | 0.020          | 0.412  | 0.023             |
| c172 | 19:44:42.13 | –14:45:22.1 | 19.414 | 0.023      | 1.112 | 0.029          | 0.317  | 0.025             |
| c173 | 19:44:43.28 | –14:44:54.1 | 19.528 | 0.025      | 1.151 | 0.033          | 0.388  | 0.030             |
| c174 | 19:44:53.07 | –14:47:56.4 | 19.430 | 0.013      | 1.788 | 0.029          | 0.408  | 0.024             |
| c175 | 19:44:49.15 | –14:45:45.4 | 19.381 | 0.018      | 1.407 | 0.025          | 0.510  | 0.032             |
| c176 | 19:44:33.42 | –14:47:45.9 | 19.441 | 0.015      | 1.536 | 0.030          | 0.325  | 0.025             |
| c177 | 19:44:51.28 | –14:47:01.1 | 19.495 | 0.012      | 1.247 | 0.024          | 0.443  | 0.026             |
| c178 | 19:44:42.45 | –14:45:32.1 | 19.424 | 0.011      | 1.522 | 0.020          | 0.469  | 0.019             |
| c179 | 19:44:57.09 | –14:48:00.9 | 19.356 | 0.021      | 1.471 | 0.025          | 0.566  | 0.032             |
| c180 | 19:44:30.75 | –14:47:25.1 | 19.458 | 0.011      | 1.306 | 0.017          | 0.420  | 0.023             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c181 | 19:44:42.17 | –14:47:37.3 | 19.379 | 0.033      | 1.642 | 0.051          | 0.936  | 0.057             |
| c182 | 19:44:53.79 | –14:46:59.1 | 19.548 | 0.011      | 1.482 | 0.035          | 0.549  | 0.026             |
| c183 | 19:44:48.72 | –14:45:56.0 | 19.536 | 0.012      | 1.373 | 0.021          | 0.687  | 0.025             |
| c184 | 19:44:52.80 | –14:45:28.5 | 19.513 | 0.012      | 1.553 | 0.023          | 0.436  | 0.021             |
| c185 | 19:44:46.76 | –14:47:25.9 | 19.552 | 0.015      | 1.181 | 0.023          | 0.395  | 0.026             |
| c186 | 19:44:48.86 | –14:47:36.6 | 19.508 | 0.015      | 1.590 | 0.026          | 0.701  | 0.026             |
| c187 | 19:44:52.88 | –14:43:42.0 | 19.596 | 0.013      | 1.265 | 0.030          | 0.404  | 0.026             |
| c188 | 19:44:38.28 | –14:43:59.7 | 19.507 | 0.011      | 1.502 | 0.018          | 0.480  | 0.021             |
| c189 | 19:44:41.10 | –14:44:42.5 | 19.567 | 0.013      | 1.121 | 0.017          | 0.375  | 0.024             |
| c190 | 19:44:48.90 | –14:45:18.5 | 19.593 | 0.012      | 1.128 | 0.018          | 0.398  | 0.022             |
| c191 | 19:44:36.76 | –14:42:53.2 | 19.569 | 0.011      | 1.325 | 0.020          | 0.584  | 0.022             |
| c192 | 19:44:51.27 | –14:48:05.9 | 19.597 | 0.017      | 1.265 | 0.026          | 0.454  | 0.032             |
| c193 | 19:44:52.35 | –14:43:22.8 | 19.616 | 0.012      | 1.381 | 0.029          | 0.382  | 0.021             |
| c194 | 19:44:52.19 | –14:45:59.8 | 19.622 | 0.014      | 1.310 | 0.027          | 0.564  | 0.030             |
| c195 | 19:44:39.03 | –14:36:30.1 | 19.600 | 0.010      | 1.278 | 0.016          | 0.600  | 0.021             |
| c196 | 19:44:35.77 | –14:42:51.1 | 19.552 | 0.023      | 1.269 | 0.026          | 0.328  | 0.036             |
| c197 | 19:44:44.22 | –14:47:56.2 | 19.660 | 0.013      | 1.104 | 0.022          | 0.369  | 0.023             |
| c198 | 19:44:54.26 | –14:42:45.0 | 19.696 | 0.018      | 1.130 | 0.025          | 0.499  | 0.024             |
| c199 | 19:44:54.76 | –14:47:22.2 | 19.617 | 0.011      | 1.720 | 0.029          | 0.330  | 0.029             |
| c200 | 19:44:48.68 | –14:42:00.8 | 19.566 | 0.010      | 1.694 | 0.023          | 0.451  | 0.024             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c201 | 19:44:53.08 | –14:44:35.3 | 19.680 | 0.012      | 1.217 | 0.023          | 0.382  | 0.024             |
| c202 | 19:44:54.62 | –14:45:39.1 | 19.700 | 0.014      | 1.122 | 0.023          | 0.346  | 0.044             |
| c203 | 19:44:55.22 | –14:46:16.4 | 19.555 | 0.020      | 1.364 | 0.024          | 0.529  | 0.026             |
| c204 | 19:44:47.53 | –14:43:11.5 | 19.638 | 0.013      | 1.744 | 0.024          | 0.372  | 0.034             |
| c205 | 19:44:43.86 | –14:44:52.6 | 19.644 | 0.011      | 1.569 | 0.022          | 0.322  | 0.021             |
| c206 | 19:44:50.98 | –14:48:03.7 | 19.694 | 0.017      | 1.536 | 0.031          | 0.380  | 0.029             |
| c207 | 19:44:39.35 | –14:42:18.0 | 19.688 | 0.016      | 1.601 | 0.040          | 0.464  | 0.025             |
| c208 | 19:44:33.99 | –14:45:17.3 | 19.750 | 0.013      | 1.404 | 0.033          | 0.417  | 0.027             |
| c209 | 19:44:47.15 | –14:42:09.2 | 19.593 | 0.016      | 1.848 | 0.028          | 0.507  | 0.024             |
| c210 | 19:44:45.89 | –14:46:53.1 | 19.785 | 0.018      | 1.142 | 0.025          | 0.456  | 0.031             |
| c211 | 19:44:50.86 | –14:47:05.8 | 19.746 | 0.014      | 1.327 | 0.025          | 0.395  | 0.027             |
| c212 | 19:44:50.32 | –14:45:35.7 | 19.737 | 0.023      | 1.422 | 0.033          | 0.514  | 0.026             |
| c213 | 19:44:39.36 | –14:44:37.3 | 19.775 | 0.014      | 1.351 | 0.024          | 0.490  | 0.027             |
| c214 | 19:44:56.64 | –14:44:42.2 | 19.808 | 0.016      | 2.057 | 0.048          | 0.341  | 0.030             |
| c215 | 19:44:29.80 | –14:43:26.3 | 19.786 | 0.015      | 1.555 | 0.028          | 0.343  | 0.026             |
| c216 | 19:44:44.58 | –14:45:44.4 | 19.829 | 0.012      | 1.312 | 0.021          | 0.489  | 0.024             |
| c217 | 19:44:52.05 | –14:43:40.1 | 19.869 | 0.014      | 1.518 | 0.035          | 0.704  | 0.035             |
| c218 | 19:44:40.79 | –14:48:08.3 | 19.830 | 0.015      | 1.614 | 0.033          | 0.544  | 0.028             |
| c219 | 19:44:29.19 | –14:45:19.0 | 19.864 | 0.013      | 1.200 | 0.021          | 0.453  | 0.029             |
| c220 | 19:44:51.48 | –14:45:01.5 | 19.970 | 0.014      | 1.389 | 0.026          | 0.456  | 0.027             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c221 | 19:44:47.44 | –14:45:47.5 | 19.920 | 0.021      | 1.597 | 0.040          | 0.345  | 0.043             |
| c222 | 19:44:53.31 | –14:44:40.5 | 19.975 | 0.015      | 1.257 | 0.028          | 0.552  | 0.031             |
| c223 | 19:44:40.67 | –14:42:18.7 | 19.996 | 0.014      | 1.867 | 0.039          | 0.852  | 0.030             |
| c224 | 19:44:44.82 | –14:44:47.0 | 19.961 | 0.018      | 1.217 | 0.033          | 0.424  | 0.035             |
| c225 | 19:44:51.73 | –14:46:34.8 | 19.998 | 0.019      | 1.245 | 0.034          | 0.704  | 0.033             |
| c226 | 19:44:49.10 | –14:40:27.6 | 20.060 | 0.013      | 1.117 | 0.021          | 0.553  | 0.030             |
| c227 | 19:44:41.90 | –14:47:36.8 | 20.031 | 0.019      | 1.662 | 0.049          | 0.535  | 0.035             |
| c228 | 19:44:48.80 | –14:47:21.1 | 20.030 | 0.019      | 1.466 | 0.032          | 0.398  | 0.033             |
| c229 | 19:44:31.84 | –14:46:05.1 | 20.015 | 0.013      | 1.492 | 0.025          | 0.541  | 0.036             |
| c230 | 19:44:53.99 | –14:47:56.2 | 20.037 | 0.052      | 1.244 | 0.060          | 0.605  | 0.049             |
| c231 | 19:44:36.48 | –14:42:01.3 | 20.191 | 0.016      | 1.517 | 0.036          | 0.370  | 0.036             |
| c232 | 19:44:56.90 | –14:44:20.6 | 20.153 | 0.020      | 1.497 | 0.033          | 0.522  | 0.043             |
| c233 | 19:44:55.04 | –14:39:09.1 | 20.389 | 0.020      | 1.743 | 0.036          | 0.506  | 0.035             |
| c234 | 19:44:56.16 | –14:41:10.9 | 20.500 | 0.020      | 1.670 | 0.042          | 0.368  | 0.043             |
| c235 | 19:44:34.94 | –14:43:27.3 | 20.808 | 0.027      | 1.836 | 0.074          | 0.515  | 0.053             |
| c236 | 19:44:58.49 | –14:46:13.2 | 17.882 | 0.013      | 1.194 | 0.024          | 0.465  | 0.024             |
| c237 | 19:45:09.13 | –14:48:06.5 | 18.099 | 0.010      | 1.373 | 0.036          | 0.466  | 0.029             |
| c238 | 19:44:58.61 | –14:44:29.1 | 18.456 | 0.011      | 1.183 | 0.033          | 0.458  | 0.030             |
| c239 | 19:45:14.31 | –14:48:05.3 | 18.447 | 0.006      | 1.315 | 0.013          | 0.462  | 0.017             |
| c240 | 19:45:24.27 | –14:45:24.3 | 18.640 | 0.013      | 1.171 | 0.045          | 0.414  | 0.039             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c241 | 19:45:08.56 | –14:44:26.0 | 18.469 | 0.008      | 1.577 | 0.015          | 0.509  | 0.016             |
| c242 | 19:45:19.40 | –14:42:24.5 | 18.601 | 0.012      | 1.276 | 0.021          | 0.418  | 0.021             |
| c243 | 19:45:07.91 | –14:47:14.9 | 18.575 | 0.007      | 1.431 | 0.014          | 0.522  | 0.019             |
| c244 | 19:45:15.09 | –14:45:20.4 | 18.646 | 0.006      | 1.272 | 0.014          | 0.401  | 0.015             |
| c245 | 19:45:10.35 | –14:46:13.2 | 18.593 | 0.006      | 1.368 | 0.012          | 0.493  | 0.014             |
| c246 | 19:45:18.37 | –14:38:28.9 | 18.555 | 0.006      | 1.563 | 0.010          | 0.470  | 0.011             |
| c247 | 19:45:04.81 | –14:46:27.4 | 18.686 | 0.011      | 1.495 | 0.030          | 0.359  | 0.031             |
| c248 | 19:45:12.30 | –14:46:43.0 | 18.623 | 0.007      | 1.407 | 0.014          | 0.567  | 0.015             |
| c249 | 19:45:11.80 | –14:41:28.9 | 18.681 | 0.007      | 1.455 | 0.016          | 0.365  | 0.017             |
| c250 | 19:45:13.71 | –14:47:01.8 | 18.694 | 0.007      | 1.400 | 0.015          | 0.517  | 0.019             |
| c251 | 19:44:58.69 | –14:45:16.0 | 18.738 | 0.010      | 1.141 | 0.019          | 0.313  | 0.019             |
| c252 | 19:44:58.76 | –14:47:21.4 | 18.693 | 0.024      | 1.205 | 0.034          | 0.309  | 0.049             |
| c253 | 19:45:16.34 | –14:44:19.7 | 18.741 | 0.008      | 1.200 | 0.015          | 0.446  | 0.016             |
| c254 | 19:45:25.66 | –14:44:52.3 | 18.766 | 0.007      | 1.214 | 0.015          | 0.431  | 0.017             |
| c255 | 19:44:58.93 | –14:44:57.6 | 18.702 | 0.010      | 1.600 | 0.019          | 0.523  | 0.020             |
| c256 | 19:45:02.37 | –14:41:03.1 | 18.760 | 0.005      | 1.140 | 0.009          | 0.318  | 0.013             |
| c257 | 19:45:04.64 | –14:39:59.0 | 18.675 | 0.007      | 1.496 | 0.013          | 0.418  | 0.014             |
| c258 | 19:45:07.05 | –14:44:25.8 | 18.693 | 0.011      | 1.519 | 0.019          | 0.503  | 0.014             |
| c259 | 19:45:04.91 | –14:46:56.0 | 18.774 | 0.009      | 1.420 | 0.022          | 0.488  | 0.020             |
| c260 | 19:44:59.04 | –14:43:37.9 | 18.808 | 0.009      | 1.298 | 0.024          | 0.399  | 0.019             |



Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c261 | 19:45:14.55 | –14:46:57.1 | 18.749 | 0.008      | 1.407 | 0.015          | 0.494  | 0.016             |
| c262 | 19:45:03.27 | –14:46:00.4 | 18.829 | 0.011      | 1.220 | 0.023          | 0.384  | 0.021             |
| c263 | 19:45:23.72 | –14:40:36.7 | 18.802 | 0.006      | 1.211 | 0.010          | 0.394  | 0.013             |
| c264 | 19:45:07.16 | –14:45:30.6 | 18.818 | 0.009      | 1.130 | 0.014          | 0.497  | 0.018             |
| c265 | 19:45:05.95 | –14:42:48.5 | 18.805 | 0.008      | 1.263 | 0.013          | 0.463  | 0.018             |
| c266 | 19:45:03.20 | –14:44:15.2 | 18.807 | 0.007      | 1.505 | 0.017          | 0.483  | 0.018             |
| c267 | 19:45:04.16 | –14:47:53.0 | 18.871 | 0.010      | 1.384 | 0.022          | 0.488  | 0.026             |
| c268 | 19:45:08.17 | –14:45:01.3 | 18.849 | 0.008      | 1.390 | 0.017          | 0.494  | 0.019             |
| c269 | 19:45:04.64 | –14:40:18.2 | 18.893 | 0.007      | 1.187 | 0.015          | 0.384  | 0.019             |
| c270 | 19:45:00.89 | –14:43:25.5 | 18.805 | 0.007      | 1.487 | 0.014          | 0.480  | 0.014             |
| c271 | 19:45:00.88 | –14:47:46.3 | 18.918 | 0.013      | 1.392 | 0.038          | 0.454  | 0.036             |
| c272 | 19:44:58.59 | –14:48:00.8 | 18.712 | 0.016      | 1.656 | 0.031          | 0.562  | 0.022             |
| c273 | 19:45:11.19 | –14:47:37.3 | 18.880 | 0.008      | 1.278 | 0.016          | 0.488  | 0.019             |
| c274 | 19:45:05.72 | –14:40:35.7 | 18.866 | 0.007      | 1.319 | 0.011          | 0.429  | 0.013             |
| c275 | 19:45:22.52 | –14:44:46.6 | 18.925 | 0.008      | 1.251 | 0.018          | 0.473  | 0.018             |
| c276 | 19:45:07.67 | –14:47:15.2 | 18.894 | 0.007      | 1.332 | 0.016          | 0.586  | 0.015             |
| c277 | 19:45:05.87 | –14:43:29.2 | 18.921 | 0.008      | 1.602 | 0.027          | 0.489  | 0.018             |
| c278 | 19:45:24.56 | –14:46:49.2 | 18.887 | 0.011      | 1.325 | 0.018          | 0.518  | 0.020             |
| c279 | 19:45:07.73 | –14:43:53.0 | 18.907 | 0.012      | 1.513 | 0.029          | 0.542  | 0.021             |
| c280 | 19:45:07.13 | –14:46:10.7 | 18.877 | 0.020      | 1.260 | 0.032          | 0.497  | 0.036             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c281 | 19:45:10.65 | –14:48:12.6 | 18.962 | 0.009      | 1.371 | 0.027          | 0.478  | 0.022             |
| c282 | 19:45:02.30 | –14:43:39.7 | 18.957 | 0.010      | 1.263 | 0.020          | 0.445  | 0.024             |
| c283 | 19:45:09.73 | –14:47:41.8 | 18.728 | 0.019      | 1.734 | 0.024          | 0.502  | 0.015             |
| c284 | 19:45:09.19 | –14:47:18.0 | 18.844 | 0.012      | 1.631 | 0.024          | 0.545  | 0.022             |
| c285 | 19:45:25.42 | –14:43:30.8 | 18.884 | 0.007      | 1.636 | 0.015          | 0.461  | 0.015             |
| c286 | 19:45:10.58 | –14:46:09.4 | 18.946 | 0.008      | 1.258 | 0.015          | 0.438  | 0.017             |
| c287 | 19:45:02.79 | –14:46:09.7 | 18.951 | 0.009      | 1.254 | 0.019          | 0.432  | 0.018             |
| c288 | 19:45:01.53 | –14:46:25.7 | 19.004 | 0.011      | 1.188 | 0.024          | 0.318  | 0.026             |
| c289 | 19:45:11.82 | –14:47:10.7 | 18.905 | 0.010      | 1.503 | 0.016          | 0.740  | 0.041             |
| c290 | 19:44:58.76 | –14:42:57.3 | 18.980 | 0.010      | 1.266 | 0.019          | 0.442  | 0.020             |
| c291 | 19:45:01.31 | –14:41:11.5 | 18.983 | 0.013      | 1.427 | 0.029          | 0.475  | 0.030             |
| c292 | 19:45:26.69 | –14:45:53.6 | 18.988 | 0.009      | 1.128 | 0.016          | 0.446  | 0.020             |
| c293 | 19:45:14.63 | –14:44:10.6 | 18.988 | 0.011      | 1.226 | 0.021          | 0.661  | 0.020             |
| c294 | 19:45:02.02 | –14:47:16.3 | 18.903 | 0.009      | 1.469 | 0.016          | 0.501  | 0.017             |
| c295 | 19:45:05.11 | –14:47:23.7 | 18.854 | 0.018      | 1.446 | 0.022          | 0.457  | 0.019             |
| c296 | 19:45:05.82 | –14:47:58.9 | 19.007 | 0.014      | 1.200 | 0.026          | 0.410  | 0.029             |
| c297 | 19:45:16.36 | –14:44:11.6 | 18.984 | 0.007      | 1.265 | 0.015          | 0.439  | 0.015             |
| c298 | 19:45:00.55 | –14:44:35.2 | 18.883 | 0.011      | 1.391 | 0.017          | 0.567  | 0.027             |
| c299 | 19:44:59.45 | –14:44:32.7 | 18.963 | 0.014      | 1.269 | 0.022          | 0.392  | 0.018             |
| c300 | 19:45:04.62 | –14:46:18.9 | 19.047 | 0.014      | 1.192 | 0.035          | 0.389  | 0.035             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c301 | 19:45:24.28 | –14:43:13.6 | 18.970 | 0.007      | 1.518 | 0.016          | 0.385  | 0.020             |
| c302 | 19:45:08.14 | –14:43:56.0 | 18.974 | 0.008      | 1.381 | 0.014          | 0.496  | 0.016             |
| c303 | 19:45:06.86 | –14:43:23.3 | 19.020 | 0.010      | 1.181 | 0.016          | 0.379  | 0.024             |
| c304 | 19:45:08.03 | –14:47:20.2 | 19.018 | 0.007      | 1.300 | 0.015          | 0.430  | 0.018             |
| c305 | 19:45:21.96 | –14:42:45.7 | 19.024 | 0.008      | 1.355 | 0.015          | 0.558  | 0.018             |
| c306 | 19:44:59.82 | –14:45:48.6 | 19.015 | 0.008      | 1.492 | 0.016          | 0.494  | 0.019             |
| c307 | 19:45:00.53 | –14:45:24.3 | 19.092 | 0.012      | 1.215 | 0.026          | 0.415  | 0.023             |
| c308 | 19:45:10.15 | –14:42:52.4 | 19.043 | 0.013      | 1.399 | 0.025          | 0.394  | 0.029             |
| c309 | 19:44:58.79 | –14:43:49.3 | 19.012 | 0.019      | 1.228 | 0.024          | 0.387  | 0.023             |
| c310 | 19:45:15.38 | –14:47:00.5 | 18.971 | 0.008      | 1.616 | 0.015          | 0.507  | 0.015             |
| c311 | 19:45:10.61 | –14:45:02.8 | 19.002 | 0.007      | 1.673 | 0.017          | 0.522  | 0.018             |
| c312 | 19:45:03.83 | –14:47:30.3 | 19.049 | 0.009      | 1.606 | 0.027          | 0.502  | 0.020             |
| c313 | 19:45:09.08 | –14:46:14.8 | 19.047 | 0.011      | 1.490 | 0.028          | 0.931  | 0.027             |
| c314 | 19:45:00.89 | –14:46:23.9 | 19.096 | 0.015      | 1.337 | 0.030          | 0.468  | 0.033             |
| c315 | 19:45:13.10 | –14:42:50.8 | 19.067 | 0.009      | 1.462 | 0.022          | 0.514  | 0.017             |
| c316 | 19:45:03.21 | –14:42:32.0 | 19.037 | 0.009      | 1.409 | 0.015          | 0.518  | 0.017             |
| c317 | 19:45:09.71 | –14:46:27.0 | 19.096 | 0.009      | 1.139 | 0.016          | 0.385  | 0.021             |
| c318 | 19:44:59.67 | –14:41:23.3 | 19.062 | 0.008      | 1.295 | 0.015          | 0.364  | 0.015             |
| c319 | 19:45:05.64 | –14:43:47.4 | 19.073 | 0.008      | 1.590 | 0.024          | 0.498  | 0.018             |
| c320 | 19:45:18.27 | –14:39:58.1 | 19.116 | 0.007      | 1.116 | 0.011          | 0.339  | 0.015             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c321 | 19:45:11.76 | –14:42:00.7 | 19.083 | 0.008      | 1.293 | 0.015          | 0.472  | 0.017             |
| c322 | 19:45:06.64 | –14:40:42.7 | 19.082 | 0.008      | 1.247 | 0.012          | 0.412  | 0.015             |
| c323 | 19:45:06.95 | –14:47:41.6 | 19.099 | 0.024      | 1.229 | 0.034          | 0.649  | 0.039             |
| c324 | 19:45:10.46 | –14:43:25.3 | 19.056 | 0.007      | 1.448 | 0.014          | 0.533  | 0.016             |
| c325 | 19:45:10.87 | –14:46:23.4 | 19.034 | 0.013      | 1.610 | 0.022          | 0.416  | 0.020             |
| c326 | 19:45:09.59 | –14:46:56.6 | 19.115 | 0.009      | 1.240 | 0.017          | 0.477  | 0.019             |
| c327 | 19:45:04.47 | –14:43:34.4 | 19.079 | 0.012      | 1.682 | 0.030          | 0.373  | 0.025             |
| c328 | 19:45:11.09 | –14:45:26.6 | 19.046 | 0.007      | 1.584 | 0.016          | 0.467  | 0.017             |
| c329 | 19:45:03.47 | –14:46:17.0 | 19.059 | 0.009      | 1.490 | 0.017          | 0.515  | 0.018             |
| c330 | 19:45:19.24 | –14:46:02.6 | 19.067 | 0.007      | 1.624 | 0.018          | 0.487  | 0.018             |
| c331 | 19:45:02.69 | –14:43:18.3 | 19.073 | 0.016      | 1.209 | 0.030          | 0.507  | 0.025             |
| c332 | 19:45:05.25 | –14:48:03.3 | 19.142 | 0.009      | 1.345 | 0.021          | 0.441  | 0.022             |
| c333 | 19:45:15.54 | –14:43:25.4 | 19.148 | 0.007      | 1.154 | 0.013          | 0.372  | 0.017             |
| c334 | 19:45:19.94 | –14:46:53.5 | 19.125 | 0.009      | 1.433 | 0.018          | 0.499  | 0.019             |
| c335 | 19:45:05.82 | –14:34:50.8 | 19.072 | 0.007      | 1.512 | 0.013          | 0.382  | 0.018             |
| c336 | 19:44:59.69 | –14:43:34.3 | 19.140 | 0.010      | 1.463 | 0.025          | 0.799  | 0.023             |
| c337 | 19:45:09.12 | –14:47:38.4 | 19.127 | 0.009      | 1.458 | 0.018          | 0.476  | 0.020             |
| c338 | 19:45:04.35 | –14:46:01.8 | 19.123 | 0.009      | 1.558 | 0.021          | 0.504  | 0.021             |
| c339 | 19:45:06.81 | –14:46:47.0 | 18.975 | 0.014      | 1.691 | 0.022          | 0.565  | 0.023             |
| c340 | 19:44:58.98 | –14:47:10.0 | 19.174 | 0.011      | 1.179 | 0.021          | 0.399  | 0.021             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c341 | 19:45:00.42 | –14:46:38.2 | 19.175 | 0.016      | 1.150 | 0.029          | 0.345  | 0.029             |
| c342 | 19:45:16.70 | –14:47:21.6 | 19.273 | 0.014      | 1.480 | 0.033          | 0.609  | 0.044             |
| c343 | 19:45:07.11 | –14:48:13.0 | 19.070 | 0.009      | 1.648 | 0.020          | 0.517  | 0.019             |
| c344 | 19:45:02.37 | –14:48:06.7 | 19.058 | 0.021      | 1.607 | 0.028          | 0.447  | 0.023             |
| c345 | 19:45:03.00 | –14:43:27.4 | 19.183 | 0.010      | 1.504 | 0.028          | 0.463  | 0.017             |
| c346 | 19:45:14.20 | –14:47:24.8 | 19.199 | 0.011      | 1.521 | 0.042          | 0.554  | 0.022             |
| c347 | 19:44:59.87 | –14:46:12.6 | 19.147 | 0.011      | 1.412 | 0.019          | 0.526  | 0.019             |
| c348 | 19:45:15.21 | –14:45:44.7 | 18.954 | 0.026      | 1.413 | 0.031          | 0.543  | 0.032             |
| c349 | 19:45:01.78 | –14:46:25.3 | 19.223 | 0.013      | 1.454 | 0.032          | 0.585  | 0.032             |
| c350 | 19:45:13.86 | –14:47:11.3 | 19.183 | 0.010      | 1.330 | 0.020          | 0.511  | 0.019             |
| c351 | 19:45:14.19 | –14:46:25.4 | 19.192 | 0.009      | 1.418 | 0.019          | 0.540  | 0.023             |
| c352 | 19:45:09.15 | –14:40:40.5 | 19.199 | 0.008      | 1.272 | 0.013          | 0.386  | 0.016             |
| c353 | 19:45:04.68 | –14:46:49.6 | 19.106 | 0.013      | 1.732 | 0.021          | 0.448  | 0.027             |
| c354 | 19:45:03.60 | –14:42:55.0 | 19.184 | 0.010      | 1.332 | 0.017          | 0.435  | 0.019             |
| c355 | 19:45:08.97 | –14:47:43.6 | 19.229 | 0.012      | 1.535 | 0.032          | 0.400  | 0.031             |
| c356 | 19:45:11.04 | –14:46:59.9 | 19.183 | 0.011      | 1.422 | 0.020          | 0.406  | 0.023             |
| c357 | 19:45:27.02 | –14:37:30.7 | 19.187 | 0.010      | 1.236 | 0.016          | 0.339  | 0.015             |
| c358 | 19:45:15.85 | –14:47:04.4 | 19.222 | 0.012      | 1.438 | 0.024          | 0.464  | 0.024             |
| c359 | 19:45:06.26 | –14:45:05.2 | 19.211 | 0.009      | 1.415 | 0.018          | 0.457  | 0.020             |
| c360 | 19:45:03.56 | –14:46:22.8 | 19.219 | 0.013      | 1.311 | 0.022          | 0.474  | 0.025             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c361 | 19:44:59.21 | –14:47:14.1 | 19.255 | 0.014      | 1.788 | 0.039          | 0.554  | 0.030             |
| c362 | 19:45:04.63 | –14:44:18.9 | 19.101 | 0.016      | 1.339 | 0.021          | 0.741  | 0.023             |
| c363 | 19:45:03.00 | –14:47:08.0 | 19.172 | 0.025      | 1.656 | 0.045          | 0.497  | 0.037             |
| c364 | 19:45:14.86 | –14:43:42.8 | 19.243 | 0.009      | 1.459 | 0.021          | 0.511  | 0.022             |
| c365 | 19:45:13.12 | –14:46:03.2 | 19.249 | 0.016      | 1.124 | 0.033          | 0.455  | 0.026             |
| c366 | 19:45:04.69 | –14:42:53.4 | 19.227 | 0.012      | 1.494 | 0.020          | 0.480  | 0.019             |
| c367 | 19:45:07.56 | –14:44:48.0 | 19.264 | 0.008      | 1.340 | 0.018          | 0.352  | 0.022             |
| c368 | 19:45:08.56 | –14:44:21.4 | 19.295 | 0.010      | 1.208 | 0.020          | 0.527  | 0.026             |
| c369 | 19:45:24.88 | –14:40:18.9 | 19.282 | 0.008      | 1.206 | 0.013          | 0.444  | 0.019             |
| c370 | 19:45:07.54 | –14:48:10.8 | 19.140 | 0.019      | 1.612 | 0.027          | 0.566  | 0.022             |
| c371 | 19:45:00.66 | –14:47:49.3 | 19.145 | 0.011      | 1.521 | 0.022          | 0.657  | 0.050             |
| c372 | 19:45:07.93 | –14:45:20.3 | 19.233 | 0.010      | 1.679 | 0.019          | 0.447  | 0.019             |
| c373 | 19:45:09.75 | –14:41:46.8 | 19.399 | 0.014      | 1.801 | 0.071          | 0.648  | 0.038             |
| c374 | 19:45:01.98 | –14:47:14.4 | 19.270 | 0.012      | 1.588 | 0.023          | 0.581  | 0.023             |
| c375 | 19:45:10.92 | –14:40:39.5 | 19.308 | 0.009      | 1.232 | 0.014          | 0.338  | 0.016             |
| c376 | 19:45:08.81 | –14:41:49.4 | 19.352 | 0.009      | 1.110 | 0.014          | 0.334  | 0.018             |
| c377 | 19:45:02.05 | –14:47:27.0 | 19.219 | 0.023      | 1.800 | 0.039          | 0.493  | 0.020             |
| c378 | 19:44:58.57 | –14:47:31.2 | 19.249 | 0.014      | 1.657 | 0.026          | 0.526  | 0.020             |
| c379 | 19:45:00.91 | –14:48:12.7 | 19.398 | 0.015      | 1.557 | 0.030          | 0.605  | 0.065             |
| c380 | 19:45:08.41 | –14:45:08.7 | 19.399 | 0.009      | 1.161 | 0.018          | 0.398  | 0.021             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c381 | 19:44:59.36 | –14:45:49.8 | 19.340 | 0.014      | 1.414 | 0.027          | 0.447  | 0.027             |
| c382 | 19:45:06.06 | –14:45:31.0 | 19.385 | 0.015      | 1.276 | 0.029          | 0.606  | 0.038             |
| c383 | 19:44:59.74 | –14:45:52.7 | 19.114 | 0.039      | 2.112 | 0.050          | 0.411  | 0.023             |
| c384 | 19:45:02.50 | –14:47:19.9 | 19.396 | 0.012      | 1.301 | 0.023          | 0.607  | 0.024             |
| c385 | 19:45:03.47 | –14:43:49.4 | 19.396 | 0.009      | 1.284 | 0.016          | 0.469  | 0.020             |
| c386 | 19:45:11.88 | –14:45:21.8 | 19.420 | 0.011      | 1.209 | 0.019          | 0.431  | 0.022             |
| c387 | 19:44:59.04 | –14:46:51.5 | 19.460 | 0.014      | 1.278 | 0.028          | 0.469  | 0.030             |
| c388 | 19:44:58.99 | –14:47:35.0 | 19.425 | 0.015      | 1.605 | 0.038          | 0.356  | 0.035             |
| c389 | 19:45:11.80 | –14:46:58.9 | 19.360 | 0.011      | 1.758 | 0.023          | 0.508  | 0.027             |
| c390 | 19:45:09.70 | –14:45:28.9 | 19.414 | 0.010      | 1.183 | 0.018          | 0.420  | 0.021             |
| c391 | 19:45:01.90 | –14:46:08.3 | 19.373 | 0.013      | 1.575 | 0.026          | 0.454  | 0.024             |
| c392 | 19:45:00.37 | –14:47:51.4 | 19.353 | 0.012      | 1.543 | 0.022          | 0.499  | 0.021             |
| c393 | 19:44:58.60 | –14:48:12.8 | 19.379 | 0.015      | 1.697 | 0.031          | 0.433  | 0.024             |
| c394 | 19:45:05.85 | –14:48:13.6 | 19.352 | 0.018      | 1.727 | 0.029          | 0.525  | 0.024             |
| c395 | 19:44:59.04 | –14:38:38.5 | 19.388 | 0.009      | 1.403 | 0.015          | 0.408  | 0.018             |
| c396 | 19:45:04.33 | –14:47:56.6 | 19.446 | 0.011      | 1.227 | 0.019          | 0.409  | 0.020             |
| c397 | 19:45:21.58 | –14:44:41.3 | 19.413 | 0.009      | 1.474 | 0.018          | 0.480  | 0.021             |
| c398 | 19:44:59.32 | –14:43:22.2 | 19.415 | 0.015      | 1.192 | 0.021          | 0.446  | 0.026             |
| c399 | 19:45:00.35 | –14:48:09.4 | 19.412 | 0.031      | 1.410 | 0.065          | 0.512  | 0.045             |
| c400 | 19:45:01.80 | –14:46:55.2 | 19.421 | 0.011      | 1.752 | 0.026          | 0.418  | 0.025             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c401 | 19:45:12.75 | –14:48:03.3 | 19.537 | 0.012      | 1.364 | 0.027          | 0.392  | 0.025             |
| c402 | 19:45:02.58 | –14:46:04.0 | 19.506 | 0.010      | 1.161 | 0.021          | 0.331  | 0.019             |
| c403 | 19:45:07.04 | –14:46:56.9 | 19.519 | 0.015      | 1.166 | 0.027          | 0.351  | 0.030             |
| c404 | 19:45:00.49 | –14:47:52.9 | 19.438 | 0.010      | 1.611 | 0.021          | 0.541  | 0.023             |
| c405 | 19:45:06.37 | –14:47:04.5 | 19.496 | 0.011      | 1.405 | 0.024          | 0.506  | 0.022             |
| c406 | 19:45:00.48 | –14:38:43.7 | 19.523 | 0.009      | 1.142 | 0.016          | 0.337  | 0.019             |
| c407 | 19:45:00.67 | –14:46:10.7 | 19.567 | 0.014      | 1.323 | 0.044          | 0.526  | 0.039             |
| c408 | 19:45:00.76 | –14:47:03.5 | 19.483 | 0.015      | 1.440 | 0.024          | 0.535  | 0.038             |
| c409 | 19:45:15.86 | –14:40:45.2 | 19.485 | 0.009      | 1.411 | 0.015          | 0.359  | 0.019             |
| c410 | 19:44:59.46 | –14:45:30.9 | 19.372 | 0.028      | 1.523 | 0.036          | 0.494  | 0.045             |
| c411 | 19:45:07.11 | –14:44:25.0 | 19.551 | 0.012      | 1.652 | 0.028          | 0.821  | 0.026             |
| c412 | 19:45:06.96 | –14:39:33.2 | 19.496 | 0.009      | 1.413 | 0.015          | 0.732  | 0.018             |
| c413 | 19:44:59.82 | –14:47:33.7 | 19.557 | 0.025      | 1.308 | 0.037          | 0.555  | 0.029             |
| c414 | 19:45:12.52 | –14:48:15.2 | 19.567 | 0.014      | 1.280 | 0.027          | 0.555  | 0.029             |
| c415 | 19:45:02.66 | –14:47:33.7 | 19.548 | 0.011      | 1.452 | 0.023          | 0.575  | 0.024             |
| c416 | 19:45:09.85 | –14:46:13.4 | 19.554 | 0.014      | 1.196 | 0.021          | 0.464  | 0.023             |
| c417 | 19:44:58.16 | –14:47:14.9 | 19.577 | 0.020      | 1.579 | 0.053          | 0.436  | 0.034             |
| c418 | 19:45:08.12 | –14:44:29.5 | 19.558 | 0.009      | 1.299 | 0.017          | 0.516  | 0.024             |
| c419 | 19:45:05.34 | –14:45:39.9 | 19.430 | 0.015      | 1.892 | 0.024          | 0.312  | 0.028             |
| c420 | 19:45:22.30 | –14:45:49.3 | 19.613 | 0.012      | 1.222 | 0.020          | 0.354  | 0.025             |



Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c421 | 19:45:10.14 | –14:47:41.9 | 19.616 | 0.013      | 1.422 | 0.026          | 0.526  | 0.026             |
| c422 | 19:45:11.33 | –14:48:07.6 | 19.566 | 0.011      | 1.781 | 0.021          | 0.448  | 0.022             |
| c423 | 19:45:02.08 | –14:44:11.7 | 19.532 | 0.015      | 1.677 | 0.026          | 0.616  | 0.032             |
| c424 | 19:45:01.96 | –14:47:33.9 | 19.666 | 0.018      | 1.218 | 0.031          | 0.334  | 0.034             |
| c425 | 19:45:04.93 | –14:43:31.4 | 19.709 | 0.014      | 1.526 | 0.034          | 0.480  | 0.029             |
| c426 | 19:45:10.09 | –14:48:17.3 | 19.706 | 0.013      | 1.231 | 0.028          | 0.558  | 0.028             |
| c427 | 19:45:02.90 | –14:46:27.9 | 19.531 | 0.031      | 1.685 | 0.044          | 0.484  | 0.042             |
| c428 | 19:45:10.39 | –14:45:49.3 | 19.408 | 0.023      | 1.733 | 0.029          | 0.535  | 0.029             |
| c429 | 19:45:19.99 | –14:46:13.2 | 19.718 | 0.013      | 1.194 | 0.022          | 0.392  | 0.024             |
| c430 | 19:44:59.12 | –14:45:17.1 | 19.765 | 0.010      | 1.198 | 0.033          | 0.401  | 0.029             |
| c431 | 19:45:08.41 | –14:46:37.4 | 19.741 | 0.012      | 1.293 | 0.020          | 0.521  | 0.025             |
| c432 | 19:45:03.48 | –14:47:47.0 | 19.909 | 0.045      | 1.108 | 0.070          | 0.541  | 0.070             |
| c433 | 19:45:20.49 | –14:40:51.7 | 19.969 | 0.014      | 1.276 | 0.023          | 0.402  | 0.024             |
| c434 | 19:44:58.27 | –14:47:15.4 | 19.907 | 0.030      | 2.181 | 0.083          | 0.494  | 0.043             |
| c435 | 19:45:04.92 | –14:44:04.5 | 20.018 | 0.019      | 1.803 | 0.046          | 0.419  | 0.041             |
| c436 | 19:45:02.32 | –14:43:01.7 | 20.186 | 0.020      | 1.426 | 0.042          | 0.378  | 0.040             |
| c437 | 19:45:23.50 | –14:45:26.2 | 20.126 | 0.017      | 1.850 | 0.036          | 0.485  | 0.032             |
| c438 | 19:45:02.38 | –14:44:51.6 | 20.438 | 0.022      | 1.499 | 0.048          | 0.615  | 0.043             |
| c439 | 19:45:30.23 | –14:43:51.1 | 17.758 | 0.005      | 1.175 | 0.008          | 0.410  | 0.011             |
| c440 | 19:45:56.51 | –14:45:24.2 | 18.276 | 0.009      | 1.106 | 0.018          | 0.370  | 0.019             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c441 | 19:45:55.02 | –14:41:43.4 | 18.336 | 0.004      | 1.485 | 0.008          | 0.519  | 0.010             |
| c442 | 19:45:31.86 | –14:45:07.6 | 18.462 | 0.005      | 1.379 | 0.008          | 0.521  | 0.011             |
| c443 | 19:45:33.48 | –14:46:31.7 | 18.936 | 0.006      | 1.157 | 0.011          | 0.429  | 0.013             |
| c444 | 19:45:29.72 | –14:39:39.9 | 18.897 | 0.007      | 1.483 | 0.011          | 0.515  | 0.015             |
| c445 | 19:45:44.75 | –14:44:37.7 | 19.010 | 0.006      | 1.137 | 0.010          | 0.332  | 0.013             |
| c446 | 19:45:38.71 | –14:41:08.6 | 19.028 | 0.011      | 1.174 | 0.018          | 0.395  | 0.021             |
| c447 | 19:45:32.64 | –14:46:14.0 | 18.993 | 0.007      | 1.305 | 0.011          | 0.538  | 0.014             |
| c448 | 19:45:41.06 | –14:44:49.5 | 19.009 | 0.006      | 1.393 | 0.011          | 0.523  | 0.013             |
| c449 | 19:45:29.79 | –14:42:40.0 | 19.103 | 0.007      | 1.120 | 0.011          | 0.414  | 0.015             |
| c450 | 19:45:37.54 | –14:48:01.9 | 18.935 | 0.006      | 1.785 | 0.011          | 0.482  | 0.013             |
| c451 | 19:45:43.20 | –14:45:45.0 | 19.036 | 0.007      | 1.430 | 0.014          | 0.506  | 0.018             |
| c452 | 19:45:51.50 | –14:48:26.4 | 19.087 | 0.008      | 1.530 | 0.019          | 0.468  | 0.017             |
| c453 | 19:45:30.01 | –14:47:51.9 | 19.167 | 0.007      | 1.118 | 0.011          | 0.411  | 0.022             |
| c454 | 19:45:36.44 | –14:44:17.6 | 19.093 | 0.006      | 1.559 | 0.012          | 0.524  | 0.013             |
| c455 | 19:45:46.18 | –14:45:45.0 | 19.049 | 0.006      | 1.852 | 0.014          | 0.393  | 0.015             |
| c456 | 19:45:42.40 | –14:45:14.2 | 19.141 | 0.006      | 1.426 | 0.013          | 0.576  | 0.014             |
| c457 | 19:45:41.62 | –14:42:41.8 | 19.210 | 0.007      | 1.394 | 0.013          | 0.479  | 0.015             |
| c458 | 19:45:36.74 | –14:41:56.9 | 19.457 | 0.008      | 1.181 | 0.013          | 0.435  | 0.018             |
| c459 | 19:45:37.97 | –14:40:28.4 | 19.523 | 0.008      | 1.120 | 0.013          | 0.353  | 0.017             |
| c460 | 19:45:47.84 | –14:45:37.7 | 19.573 | 0.008      | 1.271 | 0.014          | 0.471  | 0.017             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c461 | 19:45:36.67 | –14:47:51.7 | 19.596 | 0.009      | 1.708 | 0.018          | 0.459  | 0.019             |
| c462 | 19:45:32.30 | –14:44:10.1 | 19.950 | 0.012      | 1.322 | 0.021          | 0.369  | 0.020             |
| c463 | 19:45:28.91 | –14:48:10.6 | 19.914 | 0.029      | 1.174 | 0.032          | 0.398  | 0.027             |
| c464 | 19:45:47.84 | –14:41:32.5 | 20.737 | 0.024      | 1.781 | 0.050          | 0.499  | 0.054             |
| c465 | 19:45:52.57 | –14:45:07.9 | 20.967 | 0.025      | 1.931 | 0.064          | 0.415  | 0.048             |
| c466 | 19:46:09.54 | –14:42:17.7 | 19.326 | 0.009      | 1.594 | 0.015          | 0.531  | 0.016             |
| c467 | 19:46:02.64 | –14:35:03.6 | 19.384 | 0.009      | 1.271 | 0.014          | 0.339  | 0.019             |
| c468 | 19:46:05.11 | –14:36:51.0 | 19.569 | 0.009      | 1.292 | 0.028          | 0.399  | 0.018             |
| c469 | 19:46:04.76 | –14:41:40.5 | 19.780 | 0.010      | 1.372 | 0.017          | 0.333  | 0.019             |
| c470 | 19:46:02.00 | –14:40:58.5 | 20.006 | 0.012      | 1.126 | 0.017          | 0.692  | 0.023             |
| c471 | 19:43:55.07 | –14:52:58.0 | 18.941 | 0.007      | 1.272 | 0.011          | 0.472  | 0.014             |
| c472 | 19:43:53.18 | –14:52:37.9 | 19.197 | 0.008      | 1.336 | 0.013          | 0.479  | 0.016             |
| c473 | 19:43:52.78 | –14:58:29.5 | 19.248 | 0.010      | 1.161 | 0.016          | 0.420  | 0.020             |
| c474 | 19:43:46.12 | –14:55:21.7 | 19.223 | 0.009      | 1.167 | 0.013          | 0.327  | 0.017             |
| c475 | 19:43:52.36 | –14:53:37.0 | 19.574 | 0.011      | 1.384 | 0.018          | 0.454  | 0.021             |
| c476 | 19:44:24.18 | –14:49:42.4 | 18.450 | 0.007      | 1.143 | 0.011          | 0.403  | 0.012             |
| c477 | 19:44:01.26 | –14:53:17.7 | 18.503 | 0.005      | 1.319 | 0.009          | 0.499  | 0.010             |
| c478 | 19:44:19.37 | –14:51:30.5 | 18.829 | 0.008      | 1.247 | 0.012          | 0.518  | 0.015             |
| c479 | 19:44:17.31 | –14:50:56.0 | 18.963 | 0.007      | 1.263 | 0.012          | 0.440  | 0.014             |
| c480 | 19:44:16.66 | –14:57:01.7 | 19.015 | 0.007      | 1.151 | 0.010          | 0.346  | 0.018             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c481 | 19:44:11.60 | –14:53:58.6 | 18.963 | 0.007      | 1.290 | 0.011          | 0.545  | 0.014             |
| c482 | 19:44:18.50 | –14:52:40.0 | 19.047 | 0.008      | 1.318 | 0.013          | 0.495  | 0.013             |
| c483 | 19:44:23.07 | –14:48:19.6 | 19.084 | 0.009      | 1.311 | 0.014          | 0.472  | 0.024             |
| c484 | 19:44:22.36 | –14:48:29.0 | 19.158 | 0.009      | 1.166 | 0.015          | 0.335  | 0.018             |
| c485 | 19:44:27.10 | –14:52:05.0 | 19.168 | 0.009      | 1.519 | 0.015          | 0.509  | 0.016             |
| c486 | 19:44:08.29 | –14:57:04.4 | 19.270 | 0.008      | 1.162 | 0.012          | 0.440  | 0.015             |
| c487 | 19:44:18.00 | –14:50:31.1 | 19.299 | 0.008      | 1.127 | 0.015          | 0.433  | 0.017             |
| c488 | 19:44:12.36 | –14:51:59.5 | 19.264 | 0.009      | 1.413 | 0.016          | 0.469  | 0.019             |
| c489 | 19:44:07.38 | –14:48:40.4 | 19.296 | 0.010      | 1.231 | 0.014          | 0.424  | 0.019             |
| c490 | 19:44:26.34 | –14:55:57.3 | 19.268 | 0.008      | 1.496 | 0.014          | 0.454  | 0.017             |
| c491 | 19:44:04.22 | –14:56:19.1 | 19.379 | 0.009      | 1.209 | 0.014          | 0.398  | 0.017             |
| c492 | 19:44:14.65 | –14:56:39.5 | 19.343 | 0.009      | 1.464 | 0.016          | 0.490  | 0.016             |
| c493 | 19:44:25.64 | –14:52:26.5 | 19.393 | 0.009      | 1.143 | 0.014          | 0.427  | 0.019             |
| c494 | 19:44:20.32 | –14:49:56.0 | 19.340 | 0.009      | 1.390 | 0.014          | 0.472  | 0.017             |
| c495 | 19:44:22.88 | –14:54:51.6 | 19.422 | 0.010      | 1.230 | 0.021          | 0.479  | 0.019             |
| c496 | 19:44:17.48 | –14:51:23.0 | 19.379 | 0.012      | 1.190 | 0.015          | 0.361  | 0.016             |
| c497 | 19:44:12.77 | –14:55:22.8 | 19.414 | 0.010      | 1.225 | 0.015          | 0.570  | 0.020             |
| c498 | 19:44:21.77 | –15:00:36.2 | 19.419 | 0.010      | 1.199 | 0.015          | 0.370  | 0.020             |
| c499 | 19:44:16.20 | –14:54:10.4 | 19.384 | 0.009      | 1.439 | 0.015          | 0.427  | 0.019             |
| c500 | 19:44:15.91 | –14:50:40.1 | 19.494 | 0.010      | 1.151 | 0.014          | 0.446  | 0.018             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c501 | 19:44:23.21 | –14:52:52.2 | 19.487 | 0.010      | 1.201 | 0.015          | 0.428  | 0.018             |
| c502 | 19:44:20.51 | –14:49:35.0 | 19.444 | 0.009      | 1.449 | 0.015          | 0.518  | 0.021             |
| c503 | 19:44:06.96 | –14:54:08.6 | 19.420 | 0.009      | 1.849 | 0.018          | 0.355  | 0.019             |
| c504 | 19:44:26.67 | –14:51:34.1 | 19.424 | 0.011      | 1.822 | 0.019          | 0.408  | 0.018             |
| c505 | 19:44:24.86 | –14:57:36.9 | 19.495 | 0.009      | 1.347 | 0.015          | 0.500  | 0.021             |
| c506 | 19:44:22.32 | –14:53:31.0 | 19.428 | 0.010      | 1.704 | 0.017          | 0.489  | 0.020             |
| c507 | 19:44:15.03 | –14:52:52.2 | 19.666 | 0.010      | 1.249 | 0.016          | 0.419  | 0.021             |
| c508 | 19:44:00.96 | –14:51:45.8 | 19.698 | 0.011      | 1.226 | 0.017          | 0.426  | 0.022             |
| c509 | 19:43:58.39 | –14:59:25.7 | 19.598 | 0.010      | 1.511 | 0.020          | 0.372  | 0.056             |
| c510 | 19:44:14.77 | –14:57:17.9 | 19.737 | 0.012      | 1.263 | 0.018          | 0.442  | 0.023             |
| c511 | 19:44:26.19 | –15:01:08.8 | 19.737 | 0.014      | 1.231 | 0.020          | 0.409  | 0.025             |
| c512 | 19:44:21.62 | –14:54:18.5 | 19.696 | 0.011      | 1.490 | 0.018          | 0.462  | 0.022             |
| c513 | 19:44:17.02 | –14:56:36.5 | 19.909 | 0.014      | 1.349 | 0.023          | 0.441  | 0.028             |
| c514 | 19:44:21.42 | –14:56:42.9 | 20.000 | 0.013      | 1.588 | 0.026          | 0.303  | 0.028             |
| c515 | 19:44:25.11 | –14:50:33.4 | 20.336 | 0.017      | 1.590 | 0.036          | 0.332  | 0.037             |
| c516 | 19:44:55.76 | –14:50:21.9 | 18.390 | 0.013      | 1.389 | 0.026          | 0.518  | 0.020             |
| c517 | 19:44:41.48 | –14:55:21.6 | 18.383 | 0.005      | 1.265 | 0.008          | 0.474  | 0.012             |
| c518 | 19:44:48.40 | –14:53:10.4 | 18.516 | 0.007      | 1.460 | 0.014          | 0.534  | 0.016             |
| c519 | 19:44:53.78 | –14:51:27.7 | 18.630 | 0.026      | 1.370 | 0.054          | 0.490  | 0.049             |
| c520 | 19:44:54.95 | –14:49:34.6 | 18.686 | 0.011      | 1.105 | 0.018          | 0.492  | 0.020             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c521 | 19:44:49.11 | –14:49:51.3 | 18.544 | 0.008      | 1.610 | 0.013          | 0.579  | 0.026             |
| c522 | 19:44:28.48 | –14:53:54.7 | 18.679 | 0.007      | 1.203 | 0.011          | 0.383  | 0.014             |
| c523 | 19:44:49.17 | –14:52:15.8 | 18.737 | 0.007      | 1.146 | 0.012          | 0.354  | 0.014             |
| c524 | 19:44:32.49 | –14:49:23.4 | 18.684 | 0.006      | 1.387 | 0.012          | 0.506  | 0.014             |
| c525 | 19:44:41.23 | –14:51:56.3 | 18.790 | 0.014      | 1.341 | 0.026          | 0.494  | 0.024             |
| c526 | 19:44:52.32 | –14:55:31.8 | 18.839 | 0.009      | 1.226 | 0.019          | 0.482  | 0.020             |
| c527 | 19:44:55.67 | –14:50:16.9 | 18.710 | 0.016      | 1.557 | 0.022          | 0.512  | 0.037             |
| c528 | 19:44:51.53 | –14:48:41.0 | 18.852 | 0.008      | 1.272 | 0.016          | 0.562  | 0.019             |
| c529 | 19:44:55.68 | –14:54:05.0 | 18.884 | 0.007      | 1.273 | 0.014          | 0.454  | 0.015             |
| c530 | 19:44:50.36 | –14:55:47.3 | 18.879 | 0.007      | 1.459 | 0.015          | 0.484  | 0.016             |
| c531 | 19:44:41.84 | –14:49:07.2 | 18.848 | 0.007      | 1.514 | 0.014          | 0.464  | 0.016             |
| c532 | 19:44:53.82 | –14:56:25.4 | 18.935 | 0.008      | 1.231 | 0.013          | 0.432  | 0.016             |
| c533 | 19:44:39.17 | –14:53:39.5 | 18.758 | 0.022      | 1.373 | 0.027          | 0.559  | 0.027             |
| c534 | 19:44:56.33 | –14:50:51.4 | 18.997 | 0.021      | 1.393 | 0.042          | 0.449  | 0.038             |
| c535 | 19:44:50.71 | –14:48:41.5 | 18.930 | 0.008      | 1.396 | 0.015          | 0.562  | 0.018             |
| c536 | 19:44:46.62 | –14:49:19.4 | 18.983 | 0.010      | 1.253 | 0.020          | 0.490  | 0.021             |
| c537 | 19:44:43.23 | –14:49:31.3 | 18.963 | 0.009      | 1.258 | 0.016          | 0.397  | 0.018             |
| c538 | 19:44:38.15 | –14:48:54.3 | 18.994 | 0.012      | 1.216 | 0.027          | 0.479  | 0.025             |
| c539 | 19:44:54.18 | –14:48:28.2 | 19.012 | 0.022      | 1.304 | 0.036          | 0.350  | 0.033             |
| c540 | 19:44:43.53 | –14:50:19.9 | 18.985 | 0.014      | 1.196 | 0.019          | 0.439  | 0.021             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c541 | 19:44:42.35 | –14:51:50.4 | 19.024 | 0.021      | 1.432 | 0.042          | 0.413  | 0.043             |
| c542 | 19:44:54.24 | –14:51:27.9 | 19.076 | 0.015      | 1.405 | 0.036          | 0.385  | 0.034             |
| c543 | 19:44:40.51 | –14:49:36.9 | 18.982 | 0.010      | 1.603 | 0.022          | 0.495  | 0.021             |
| c544 | 19:44:46.63 | –14:49:26.5 | 18.930 | 0.013      | 1.527 | 0.018          | 0.468  | 0.021             |
| c545 | 19:44:49.29 | –14:48:46.8 | 19.028 | 0.011      | 1.524 | 0.021          | 0.523  | 0.022             |
| c546 | 19:44:50.92 | –14:49:48.8 | 19.091 | 0.013      | 1.173 | 0.024          | 0.430  | 0.024             |
| c547 | 19:44:50.60 | –14:48:55.8 | 18.995 | 0.015      | 1.342 | 0.020          | 0.433  | 0.027             |
| c548 | 19:44:56.47 | –14:51:38.8 | 19.091 | 0.015      | 1.128 | 0.023          | 0.450  | 0.025             |
| c549 | 19:44:53.74 | –14:55:20.2 | 19.040 | 0.007      | 1.261 | 0.012          | 0.446  | 0.016             |
| c550 | 19:44:55.94 | –14:49:51.2 | 19.131 | 0.012      | 1.118 | 0.022          | 0.397  | 0.025             |
| c551 | 19:44:53.17 | –14:49:25.6 | 18.921 | 0.049      | 1.471 | 0.052          | 0.530  | 0.021             |
| c552 | 19:44:49.60 | –14:55:35.2 | 19.029 | 0.009      | 1.687 | 0.019          | 0.460  | 0.017             |
| c553 | 19:44:53.43 | –14:52:54.4 | 19.089 | 0.008      | 1.144 | 0.015          | 0.405  | 0.018             |
| c554 | 19:44:54.26 | –14:52:55.9 | 19.069 | 0.010      | 1.262 | 0.015          | 0.536  | 0.020             |
| c555 | 19:44:50.99 | –14:49:29.9 | 19.093 | 0.012      | 1.119 | 0.020          | 0.419  | 0.022             |
| c556 | 19:44:52.97 | –14:51:50.0 | 19.138 | 0.012      | 1.174 | 0.025          | 0.426  | 0.027             |
| c557 | 19:44:56.37 | –14:50:12.3 | 19.050 | 0.019      | 1.332 | 0.025          | 0.540  | 0.023             |
| c558 | 19:44:28.49 | –14:50:43.5 | 19.091 | 0.013      | 1.262 | 0.024          | 0.498  | 0.026             |
| c559 | 19:44:32.55 | –14:49:10.4 | 19.019 | 0.011      | 1.245 | 0.015          | 0.410  | 0.021             |
| c560 | 19:44:55.78 | –14:53:42.3 | 19.111 | 0.009      | 1.352 | 0.024          | 0.502  | 0.021             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c561 | 19:44:40.97 | –14:51:35.2 | 19.036 | 0.011      | 1.363 | 0.016          | 0.517  | 0.018             |
| c562 | 19:44:48.48 | –14:50:52.2 | 19.048 | 0.010      | 1.492 | 0.018          | 0.454  | 0.020             |
| c563 | 19:44:46.78 | –14:51:41.1 | 19.139 | 0.019      | 1.207 | 0.038          | 0.397  | 0.044             |
| c564 | 19:44:48.34 | –14:50:55.6 | 19.068 | 0.009      | 1.278 | 0.014          | 0.560  | 0.024             |
| c565 | 19:44:32.43 | –14:56:30.0 | 19.171 | 0.009      | 1.524 | 0.039          | 0.667  | 0.024             |
| c566 | 19:44:54.51 | –14:52:36.6 | 19.092 | 0.010      | 1.400 | 0.016          | 0.529  | 0.020             |
| c567 | 19:44:52.66 | –14:49:01.5 | 19.146 | 0.011      | 1.142 | 0.019          | 0.481  | 0.020             |
| c568 | 19:44:53.76 | –14:49:31.7 | 19.194 | 0.021      | 1.321 | 0.041          | 0.625  | 0.037             |
| c569 | 19:44:52.29 | –14:49:15.6 | 19.161 | 0.018      | 1.488 | 0.035          | 0.352  | 0.040             |
| c570 | 19:44:54.43 | –14:52:52.8 | 19.070 | 0.011      | 1.351 | 0.016          | 0.497  | 0.018             |
| c571 | 19:44:47.78 | –14:48:46.6 | 19.188 | 0.013      | 1.445 | 0.031          | 0.436  | 0.027             |
| c572 | 19:44:53.50 | –14:52:00.2 | 19.138 | 0.009      | 1.220 | 0.014          | 0.429  | 0.020             |
| c573 | 19:44:50.49 | –14:48:48.0 | 19.126 | 0.011      | 1.278 | 0.019          | 0.548  | 0.024             |
| c574 | 19:44:41.25 | –14:53:22.4 | 19.048 | 0.007      | 1.693 | 0.016          | 0.481  | 0.017             |
| c575 | 19:44:57.30 | –14:49:09.3 | 19.201 | 0.012      | 1.252 | 0.028          | 0.454  | 0.026             |
| c576 | 19:44:45.47 | –14:51:03.1 | 19.136 | 0.010      | 1.200 | 0.017          | 0.402  | 0.019             |
| c577 | 19:44:50.24 | –14:53:20.7 | 19.083 | 0.009      | 1.602 | 0.016          | 0.530  | 0.019             |
| c578 | 19:44:40.47 | –14:52:39.7 | 19.110 | 0.010      | 1.484 | 0.019          | 0.439  | 0.021             |
| c579 | 19:44:49.19 | –14:49:42.2 | 19.168 | 0.009      | 1.125 | 0.015          | 0.314  | 0.018             |
| c580 | 19:44:49.13 | –14:50:57.0 | 19.126 | 0.010      | 1.459 | 0.018          | 0.512  | 0.020             |



Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c581 | 19:44:56.94 | –14:49:23.2 | 19.138 | 0.016      | 1.282 | 0.026          | 0.506  | 0.028             |
| c582 | 19:44:52.04 | –14:54:43.7 | 19.114 | 0.014      | 1.188 | 0.021          | 0.779  | 0.042             |
| c583 | 19:44:38.30 | –14:54:06.5 | 19.167 | 0.009      | 1.262 | 0.015          | 0.400  | 0.018             |
| c584 | 19:44:54.29 | –14:50:47.6 | 19.177 | 0.010      | 1.527 | 0.030          | 0.566  | 0.022             |
| c585 | 19:44:56.48 | –14:54:03.0 | 19.209 | 0.010      | 1.126 | 0.018          | 0.404  | 0.020             |
| c586 | 19:44:55.28 | –14:50:32.9 | 19.201 | 0.012      | 1.369 | 0.024          | 0.518  | 0.026             |
| c587 | 19:44:52.16 | –14:50:26.4 | 19.248 | 0.019      | 1.445 | 0.035          | 0.443  | 0.044             |
| c588 | 19:44:44.19 | –14:49:36.0 | 19.166 | 0.009      | 1.465 | 0.017          | 0.493  | 0.019             |
| c589 | 19:44:40.81 | –14:48:32.9 | 19.184 | 0.008      | 1.243 | 0.014          | 0.492  | 0.020             |
| c590 | 19:44:56.28 | –14:49:09.6 | 19.264 | 0.017      | 1.547 | 0.042          | 0.552  | 0.035             |
| c591 | 19:44:44.68 | –14:48:47.4 | 19.199 | 0.013      | 1.345 | 0.024          | 0.398  | 0.022             |
| c592 | 19:44:49.80 | –14:53:46.6 | 19.253 | 0.011      | 1.179 | 0.022          | 0.564  | 0.025             |
| c593 | 19:44:45.23 | –14:51:39.8 | 19.244 | 0.012      | 1.290 | 0.029          | 0.477  | 0.028             |
| c594 | 19:44:32.55 | –14:49:01.4 | 19.191 | 0.009      | 1.322 | 0.017          | 0.447  | 0.020             |
| c595 | 19:44:51.62 | –14:50:51.1 | 19.231 | 0.010      | 1.282 | 0.018          | 0.523  | 0.020             |
| c596 | 19:44:50.59 | –14:51:27.3 | 19.266 | 0.021      | 1.163 | 0.037          | 0.423  | 0.035             |
| c597 | 19:44:52.00 | –14:48:40.8 | 19.183 | 0.012      | 1.675 | 0.023          | 0.411  | 0.025             |
| c598 | 19:44:45.54 | –14:53:59.8 | 19.226 | 0.016      | 1.238 | 0.019          | 0.518  | 0.019             |
| c599 | 19:44:47.47 | –14:53:23.4 | 19.268 | 0.015      | 1.210 | 0.030          | 0.435  | 0.032             |
| c600 | 19:44:32.52 | –14:51:31.9 | 19.188 | 0.009      | 1.258 | 0.014          | 0.448  | 0.017             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c601 | 19:44:46.73 | –14:49:28.6 | 19.270 | 0.018      | 1.381 | 0.036          | 0.364  | 0.037             |
| c602 | 19:44:57.25 | –14:50:21.1 | 19.362 | 0.016      | 1.346 | 0.034          | 0.875  | 0.030             |
| c603 | 19:44:55.66 | –14:51:07.7 | 19.280 | 0.016      | 1.322 | 0.032          | 0.441  | 0.038             |
| c604 | 19:44:35.16 | –14:53:29.3 | 19.227 | 0.008      | 1.205 | 0.013          | 0.403  | 0.017             |
| c605 | 19:44:51.16 | –14:53:39.7 | 19.264 | 0.010      | 1.284 | 0.017          | 0.461  | 0.019             |
| c606 | 19:44:51.71 | –14:59:45.3 | 19.242 | 0.010      | 1.305 | 0.017          | 0.445  | 0.021             |
| c607 | 19:44:39.13 | –14:50:05.7 | 19.239 | 0.013      | 1.246 | 0.023          | 0.473  | 0.026             |
| c608 | 19:44:52.11 | –14:50:04.4 | 19.310 | 0.021      | 1.349 | 0.042          | 0.462  | 0.042             |
| c609 | 19:44:56.29 | –14:50:49.2 | 19.227 | 0.017      | 1.381 | 0.026          | 0.523  | 0.034             |
| c610 | 19:44:38.21 | –14:51:59.3 | 19.200 | 0.008      | 1.443 | 0.014          | 0.422  | 0.018             |
| c611 | 19:44:57.24 | –14:48:34.7 | 19.349 | 0.013      | 1.543 | 0.035          | 0.406  | 0.023             |
| c612 | 19:44:44.52 | –14:53:22.7 | 19.240 | 0.009      | 1.566 | 0.019          | 0.440  | 0.020             |
| c613 | 19:44:54.81 | –14:51:54.2 | 19.318 | 0.011      | 1.189 | 0.022          | 0.506  | 0.025             |
| c614 | 19:44:48.92 | –14:52:07.8 | 19.263 | 0.012      | 1.590 | 0.026          | 0.465  | 0.026             |
| c615 | 19:44:32.30 | –14:51:42.1 | 19.220 | 0.010      | 1.485 | 0.016          | 0.448  | 0.019             |
| c616 | 19:44:53.06 | –14:48:33.5 | 19.308 | 0.016      | 1.498 | 0.030          | 0.578  | 0.023             |
| c617 | 19:44:55.24 | –14:48:50.8 | 19.288 | 0.011      | 1.400 | 0.021          | 0.486  | 0.022             |
| c618 | 19:44:45.91 | –14:49:07.3 | 19.272 | 0.011      | 1.275 | 0.015          | 0.528  | 0.020             |
| c619 | 19:44:54.04 | –14:52:05.5 | 19.314 | 0.009      | 1.122 | 0.015          | 0.403  | 0.020             |
| c620 | 19:44:37.49 | –14:51:39.3 | 19.313 | 0.013      | 1.407 | 0.026          | 0.538  | 0.034             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c621 | 19:44:51.78 | –14:48:49.8 | 19.261 | 0.017      | 1.633 | 0.029          | 0.416  | 0.026             |
| c622 | 19:44:38.89 | –14:49:23.2 | 19.302 | 0.010      | 1.176 | 0.015          | 0.544  | 0.019             |
| c623 | 19:44:35.10 | –14:51:20.7 | 19.275 | 0.009      | 1.359 | 0.015          | 0.439  | 0.020             |
| c624 | 19:44:40.96 | –14:51:03.0 | 19.355 | 0.012      | 1.181 | 0.021          | 0.484  | 0.021             |
| c625 | 19:44:45.89 | –14:52:00.9 | 19.217 | 0.015      | 1.440 | 0.022          | 0.515  | 0.025             |
| c626 | 19:44:35.83 | –14:52:20.5 | 19.302 | 0.009      | 1.296 | 0.016          | 0.482  | 0.019             |
| c627 | 19:44:46.69 | –14:50:33.9 | 19.201 | 0.030      | 1.379 | 0.051          | 0.607  | 0.039             |
| c628 | 19:44:33.41 | –14:48:46.3 | 19.231 | 0.017      | 1.366 | 0.025          | 0.598  | 0.027             |
| c629 | 19:44:54.78 | –14:48:54.6 | 19.570 | 0.036      | 1.110 | 0.045          | 0.465  | 0.028             |
| c630 | 19:44:43.93 | –14:49:44.4 | 19.347 | 0.018      | 1.118 | 0.025          | 0.383  | 0.024             |
| c631 | 19:44:55.92 | –14:51:00.1 | 19.332 | 0.009      | 1.460 | 0.020          | 0.491  | 0.018             |
| c632 | 19:44:52.91 | –14:51:17.1 | 19.393 | 0.013      | 1.513 | 0.031          | 0.624  | 0.027             |
| c633 | 19:44:55.54 | –14:51:21.1 | 19.335 | 0.013      | 1.275 | 0.020          | 0.485  | 0.024             |
| c634 | 19:44:48.73 | –14:48:40.9 | 19.261 | 0.017      | 1.246 | 0.023          | 0.541  | 0.040             |
| c635 | 19:44:56.34 | –14:51:45.4 | 19.333 | 0.034      | 1.221 | 0.052          | 0.404  | 0.032             |
| c636 | 19:44:48.73 | –14:49:20.2 | 19.447 | 0.026      | 1.138 | 0.040          | 0.388  | 0.033             |
| c637 | 19:44:45.84 | –14:58:56.0 | 19.389 | 0.008      | 1.286 | 0.015          | 0.445  | 0.019             |
| c638 | 19:44:43.11 | –14:51:29.3 | 19.350 | 0.011      | 1.446 | 0.017          | 0.531  | 0.025             |
| c639 | 19:44:53.68 | –14:50:22.5 | 19.255 | 0.020      | 1.541 | 0.027          | 0.488  | 0.030             |
| c640 | 19:44:57.27 | –14:50:24.7 | 19.390 | 0.010      | 1.487 | 0.018          | 0.430  | 0.020             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c641 | 19:44:54.00 | –14:51:09.9 | 19.448 | 0.013      | 1.152 | 0.025          | 0.476  | 0.032             |
| c642 | 19:44:31.15 | –14:49:56.2 | 19.401 | 0.014      | 1.169 | 0.018          | 0.427  | 0.023             |
| c643 | 19:44:45.27 | –14:55:12.2 | 19.471 | 0.012      | 1.430 | 0.029          | 0.935  | 0.025             |
| c644 | 19:44:38.93 | –14:52:08.0 | 19.445 | 0.011      | 1.301 | 0.020          | 0.734  | 0.024             |
| c645 | 19:44:38.86 | –14:58:06.0 | 19.447 | 0.009      | 1.254 | 0.014          | 0.531  | 0.019             |
| c646 | 19:44:28.97 | –14:50:39.8 | 19.414 | 0.009      | 1.287 | 0.016          | 0.491  | 0.023             |
| c647 | 19:44:54.88 | –14:48:56.5 | 19.613 | 0.040      | 1.562 | 0.058          | 0.564  | 0.037             |
| c648 | 19:44:40.83 | –14:50:40.5 | 19.402 | 0.010      | 1.645 | 0.021          | 0.457  | 0.021             |
| c649 | 19:44:42.90 | –14:52:34.3 | 19.494 | 0.010      | 1.176 | 0.016          | 0.408  | 0.018             |
| c650 | 19:44:48.14 | –14:58:37.2 | 19.393 | 0.019      | 1.383 | 0.022          | 0.444  | 0.019             |
| c651 | 19:44:36.83 | –14:53:15.8 | 19.431 | 0.010      | 1.649 | 0.023          | 0.459  | 0.024             |
| c652 | 19:44:41.76 | –14:52:13.0 | 19.425 | 0.013      | 1.663 | 0.022          | 0.352  | 0.024             |
| c653 | 19:44:51.62 | –14:48:34.4 | 19.417 | 0.013      | 1.721 | 0.025          | 0.483  | 0.031             |
| c654 | 19:44:39.56 | –14:49:46.0 | 19.447 | 0.010      | 1.559 | 0.020          | 0.456  | 0.022             |
| c655 | 19:44:29.01 | –14:51:07.7 | 19.429 | 0.011      | 1.348 | 0.016          | 0.481  | 0.023             |
| c656 | 19:44:47.28 | –15:00:35.9 | 19.529 | 0.012      | 1.253 | 0.018          | 0.342  | 0.021             |
| c657 | 19:44:55.63 | –14:51:15.0 | 19.422 | 0.027      | 1.181 | 0.035          | 0.493  | 0.040             |
| c658 | 19:44:41.74 | –14:51:19.8 | 19.529 | 0.011      | 1.173 | 0.018          | 0.344  | 0.024             |
| c659 | 19:44:46.77 | –14:53:14.9 | 19.475 | 0.012      | 1.628 | 0.022          | 0.438  | 0.024             |
| c660 | 19:44:45.99 | –14:49:46.5 | 19.585 | 0.019      | 1.455 | 0.039          | 0.758  | 0.039             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c661 | 19:44:56.65 | –14:49:35.7 | 19.640 | 0.017      | 1.126 | 0.030          | 0.408  | 0.033             |
| c662 | 19:44:47.78 | –14:48:58.2 | 19.412 | 0.026      | 1.337 | 0.035          | 0.450  | 0.040             |
| c663 | 19:44:51.68 | –14:51:39.5 | 19.560 | 0.012      | 1.452 | 0.025          | 0.391  | 0.026             |
| c664 | 19:44:55.14 | –14:54:41.3 | 19.588 | 0.010      | 1.154 | 0.017          | 0.422  | 0.026             |
| c665 | 19:44:53.76 | –14:51:46.1 | 19.550 | 0.011      | 1.474 | 0.020          | 0.484  | 0.021             |
| c666 | 19:44:39.39 | –14:50:39.3 | 19.641 | 0.012      | 1.123 | 0.023          | 0.537  | 0.029             |
| c667 | 19:44:56.85 | –14:52:19.7 | 19.575 | 0.012      | 1.148 | 0.018          | 0.434  | 0.023             |
| c668 | 19:44:51.92 | –14:48:55.2 | 19.497 | 0.033      | 1.357 | 0.054          | 0.576  | 0.046             |
| c669 | 19:44:53.09 | –14:51:27.9 | 19.605 | 0.013      | 1.362 | 0.026          | 0.480  | 0.026             |
| c670 | 19:44:39.35 | –14:49:38.8 | 19.563 | 0.013      | 1.589 | 0.027          | 0.382  | 0.024             |
| c671 | 19:44:55.64 | –14:55:07.5 | 19.524 | 0.010      | 1.644 | 0.020          | 0.429  | 0.021             |
| c672 | 19:44:40.16 | –14:52:12.7 | 19.600 | 0.013      | 1.326 | 0.023          | 0.447  | 0.025             |
| c673 | 19:44:43.28 | –14:49:15.9 | 19.575 | 0.015      | 1.234 | 0.025          | 0.405  | 0.031             |
| c674 | 19:44:37.33 | –14:52:42.7 | 19.566 | 0.010      | 1.506 | 0.018          | 0.750  | 0.024             |
| c675 | 19:44:47.87 | –14:50:09.3 | 19.613 | 0.011      | 1.408 | 0.025          | 0.706  | 0.027             |
| c676 | 19:44:49.34 | –14:53:15.5 | 19.642 | 0.012      | 1.347 | 0.021          | 0.664  | 0.023             |
| c677 | 19:44:40.32 | –14:50:12.9 | 19.586 | 0.017      | 1.643 | 0.033          | 0.441  | 0.030             |
| c678 | 19:44:51.41 | –14:50:16.2 | 19.660 | 0.014      | 1.675 | 0.038          | 0.386  | 0.028             |
| c679 | 19:44:39.61 | –14:59:35.2 | 19.606 | 0.010      | 1.406 | 0.018          | 0.401  | 0.021             |
| c680 | 19:44:40.32 | –14:50:31.9 | 19.700 | 0.018      | 1.122 | 0.030          | 0.438  | 0.036             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c681 | 19:44:38.30 | –14:52:55.5 | 19.634 | 0.012      | 1.392 | 0.021          | 0.476  | 0.024             |
| c682 | 19:44:52.06 | –14:59:26.0 | 19.643 | 0.012      | 1.346 | 0.019          | 0.436  | 0.021             |
| c683 | 19:44:54.94 | –14:49:51.0 | 19.700 | 0.015      | 1.259 | 0.033          | 0.521  | 0.035             |
| c684 | 19:44:54.97 | –14:48:45.5 | 19.757 | 0.017      | 1.264 | 0.035          | 0.405  | 0.037             |
| c685 | 19:44:50.24 | –14:51:06.8 | 19.628 | 0.013      | 1.515 | 0.026          | 0.509  | 0.042             |
| c686 | 19:44:46.27 | –14:48:47.0 | 19.684 | 0.016      | 1.244 | 0.029          | 0.533  | 0.029             |
| c687 | 19:44:48.86 | –14:57:10.7 | 19.628 | 0.011      | 1.467 | 0.019          | 0.735  | 0.025             |
| c688 | 19:44:46.21 | –14:52:03.9 | 19.686 | 0.017      | 1.565 | 0.035          | 0.508  | 0.028             |
| c689 | 19:44:51.01 | –14:52:22.7 | 19.661 | 0.028      | 1.156 | 0.031          | 0.590  | 0.029             |
| c690 | 19:44:48.42 | –14:53:57.9 | 19.681 | 0.011      | 1.499 | 0.022          | 0.417  | 0.024             |
| c691 | 19:44:47.45 | –14:53:00.8 | 19.673 | 0.010      | 1.417 | 0.019          | 0.510  | 0.023             |
| c692 | 19:44:44.96 | –14:51:14.4 | 19.759 | 0.016      | 1.165 | 0.026          | 0.344  | 0.027             |
| c693 | 19:44:51.15 | –14:50:17.6 | 19.744 | 0.014      | 1.229 | 0.028          | 0.427  | 0.030             |
| c694 | 19:44:38.02 | –14:48:28.5 | 19.693 | 0.017      | 1.227 | 0.025          | 0.545  | 0.040             |
| c695 | 19:44:49.03 | –14:53:48.0 | 19.658 | 0.014      | 1.871 | 0.027          | 0.339  | 0.023             |
| c696 | 19:44:52.50 | –14:48:47.0 | 19.709 | 0.017      | 1.754 | 0.034          | 0.516  | 0.032             |
| c697 | 19:44:53.21 | –14:50:22.2 | 19.822 | 0.023      | 1.138 | 0.029          | 0.544  | 0.032             |
| c698 | 19:44:54.35 | –14:48:31.3 | 19.767 | 0.019      | 1.710 | 0.045          | 0.457  | 0.038             |
| c699 | 19:44:42.92 | –14:52:06.8 | 19.709 | 0.013      | 1.602 | 0.023          | 0.488  | 0.027             |
| c700 | 19:44:42.60 | –14:51:13.4 | 19.791 | 0.014      | 1.223 | 0.023          | 0.456  | 0.026             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c701 | 19:44:48.57 | –14:49:04.1 | 19.762 | 0.017      | 1.679 | 0.031          | 0.472  | 0.030             |
| c702 | 19:44:36.89 | –14:53:11.5 | 19.845 | 0.014      | 1.161 | 0.027          | 0.393  | 0.028             |
| c703 | 19:44:36.92 | –14:53:17.2 | 19.805 | 0.012      | 1.800 | 0.031          | 0.309  | 0.026             |
| c704 | 19:44:35.36 | –14:50:15.0 | 19.806 | 0.013      | 1.547 | 0.025          | 0.721  | 0.037             |
| c705 | 19:44:44.15 | –14:57:43.7 | 19.822 | 0.012      | 1.210 | 0.018          | 0.478  | 0.027             |
| c706 | 19:44:46.90 | –14:48:56.5 | 19.847 | 0.018      | 1.334 | 0.030          | 0.476  | 0.033             |
| c707 | 19:44:39.38 | –14:50:29.2 | 19.845 | 0.014      | 1.517 | 0.028          | 0.359  | 0.030             |
| c708 | 19:44:54.47 | –14:50:13.0 | 19.873 | 0.021      | 1.411 | 0.040          | 0.485  | 0.039             |
| c709 | 19:44:50.23 | –14:51:05.5 | 19.928 | 0.020      | 1.245 | 0.029          | 0.810  | 0.036             |
| c710 | 19:44:49.22 | –14:52:31.9 | 19.942 | 0.013      | 1.216 | 0.030          | 0.527  | 0.028             |
| c711 | 19:44:41.40 | –14:49:15.8 | 19.925 | 0.016      | 1.322 | 0.029          | 0.494  | 0.029             |
| c712 | 19:44:35.18 | –14:51:34.6 | 19.875 | 0.013      | 1.442 | 0.022          | 0.469  | 0.025             |
| c713 | 19:44:48.90 | –14:51:03.2 | 20.021 | 0.021      | 1.354 | 0.042          | 0.543  | 0.041             |
| c714 | 19:44:40.65 | –14:49:06.4 | 19.948 | 0.018      | 1.179 | 0.027          | 0.396  | 0.033             |
| c715 | 19:44:52.63 | –14:56:08.8 | 20.029 | 0.022      | 1.424 | 0.041          | 0.438  | 0.033             |
| c716 | 19:44:42.46 | –14:52:40.5 | 20.074 | 0.015      | 1.101 | 0.025          | 0.640  | 0.033             |
| c717 | 19:44:56.75 | –14:51:25.1 | 20.066 | 0.033      | 1.462 | 0.062          | 0.334  | 0.056             |
| c718 | 19:44:52.85 | –14:49:57.2 | 20.222 | 0.024      | 1.113 | 0.043          | 0.520  | 0.068             |
| c719 | 19:44:37.90 | –14:55:43.8 | 20.199 | 0.027      | 1.230 | 0.049          | 0.305  | 0.034             |
| c720 | 19:44:32.92 | –14:51:51.4 | 20.150 | 0.016      | 1.372 | 0.029          | 0.337  | 0.038             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c721 | 19:44:53.83 | –14:48:59.0 | 20.304 | 0.025      | 1.450 | 0.046          | 0.486  | 0.047             |
| c722 | 19:44:55.48 | –14:49:32.9 | 20.338 | 0.026      | 1.274 | 0.036          | 0.517  | 0.048             |
| c723 | 19:45:21.36 | –14:52:50.3 | 17.991 | 0.004      | 1.181 | 0.008          | 0.557  | 0.010             |
| c724 | 19:45:02.49 | –14:49:04.6 | 18.115 | 0.007      | 1.316 | 0.013          | 0.661  | 0.013             |
| c725 | 19:45:10.70 | –14:48:33.3 | 18.425 | 0.012      | 1.228 | 0.030          | 0.454  | 0.028             |
| c726 | 19:44:58.33 | –14:48:52.3 | 18.445 | 0.024      | 1.336 | 0.050          | 0.361  | 0.042             |
| c727 | 19:45:02.96 | –14:52:55.9 | 18.371 | 0.007      | 1.286 | 0.011          | 1.033  | 0.013             |
| c728 | 19:45:20.93 | –14:51:01.7 | 18.460 | 0.005      | 1.130 | 0.008          | 0.453  | 0.012             |
| c729 | 19:44:58.67 | –14:48:37.4 | 18.655 | 0.015      | 1.291 | 0.030          | 0.502  | 0.034             |
| c730 | 19:45:00.32 | –14:49:42.4 | 18.666 | 0.012      | 1.320 | 0.023          | 0.518  | 0.023             |
| c731 | 19:45:11.83 | –14:50:10.9 | 18.610 | 0.011      | 1.627 | 0.021          | 0.474  | 0.018             |
| c732 | 19:45:20.89 | –14:48:55.0 | 18.686 | 0.010      | 1.152 | 0.016          | 0.364  | 0.018             |
| c733 | 19:45:00.16 | –14:50:19.1 | 18.690 | 0.010      | 1.160 | 0.016          | 0.450  | 0.020             |
| c734 | 19:44:58.30 | –14:49:09.4 | 18.706 | 0.010      | 1.252 | 0.021          | 0.555  | 0.018             |
| c735 | 19:45:06.91 | –14:51:31.4 | 18.584 | 0.010      | 1.482 | 0.013          | 0.505  | 0.021             |
| c736 | 19:45:03.69 | –14:50:11.4 | 18.723 | 0.008      | 1.254 | 0.013          | 0.488  | 0.015             |
| c737 | 19:45:23.00 | –14:57:36.2 | 18.758 | 0.006      | 1.181 | 0.010          | 0.423  | 0.012             |
| c738 | 19:45:14.06 | –14:50:25.6 | 18.811 | 0.008      | 1.104 | 0.014          | 0.422  | 0.017             |
| c739 | 19:45:03.52 | –14:53:25.0 | 18.768 | 0.009      | 1.335 | 0.016          | 0.622  | 0.014             |
| c740 | 19:45:23.90 | –14:53:38.9 | 18.835 | 0.005      | 1.177 | 0.011          | 0.455  | 0.013             |



Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c741 | 19:44:58.83 | –14:49:10.1 | 18.953 | 0.013      | 1.257 | 0.031          | 0.520  | 0.036             |
| c742 | 19:45:07.52 | –14:59:18.6 | 18.913 | 0.006      | 1.147 | 0.012          | 0.426  | 0.015             |
| c743 | 19:45:24.95 | –14:54:44.2 | 18.897 | 0.007      | 1.194 | 0.012          | 0.405  | 0.014             |
| c744 | 19:44:59.15 | –14:50:45.1 | 18.912 | 0.009      | 1.286 | 0.017          | 0.370  | 0.017             |
| c745 | 19:45:21.11 | –14:59:19.1 | 18.860 | 0.006      | 1.443 | 0.011          | 0.402  | 0.014             |
| c746 | 19:45:03.82 | –14:49:27.4 | 18.974 | 0.009      | 1.438 | 0.024          | 0.503  | 0.021             |
| c747 | 19:44:58.38 | –14:48:51.5 | 19.032 | 0.019      | 1.385 | 0.048          | 0.521  | 0.044             |
| c748 | 19:45:00.03 | –14:53:35.4 | 18.991 | 0.008      | 1.197 | 0.014          | 0.461  | 0.016             |
| c749 | 19:45:07.35 | –14:59:22.2 | 18.946 | 0.007      | 1.334 | 0.012          | 0.446  | 0.015             |
| c750 | 19:45:23.24 | –14:51:19.1 | 18.982 | 0.008      | 1.233 | 0.014          | 0.517  | 0.017             |
| c751 | 19:45:08.56 | –14:52:40.4 | 18.951 | 0.009      | 1.537 | 0.018          | 0.458  | 0.016             |
| c752 | 19:44:58.73 | –14:49:56.0 | 19.016 | 0.016      | 1.381 | 0.031          | 0.852  | 0.032             |
| c753 | 19:45:21.05 | –14:50:01.3 | 18.936 | 0.006      | 1.433 | 0.011          | 0.464  | 0.014             |
| c754 | 19:45:10.61 | –14:53:04.2 | 18.952 | 0.008      | 1.547 | 0.016          | 0.495  | 0.019             |
| c755 | 19:45:00.52 | –14:48:47.1 | 19.041 | 0.010      | 1.165 | 0.019          | 0.435  | 0.022             |
| c756 | 19:45:20.62 | –14:54:10.3 | 19.015 | 0.007      | 1.142 | 0.011          | 0.411  | 0.016             |
| c757 | 19:45:22.99 | –14:50:04.4 | 19.003 | 0.008      | 1.204 | 0.012          | 0.524  | 0.017             |
| c758 | 19:45:16.33 | –14:50:27.5 | 18.962 | 0.007      | 1.316 | 0.011          | 0.526  | 0.016             |
| c759 | 19:45:11.35 | –14:52:11.0 | 19.028 | 0.007      | 1.129 | 0.011          | 0.375  | 0.015             |
| c760 | 19:45:02.49 | –14:49:55.2 | 19.079 | 0.011      | 1.311 | 0.023          | 0.569  | 0.025             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c761 | 19:44:58.20 | –14:50:31.5 | 19.026 | 0.024      | 1.276 | 0.029          | 0.359  | 0.045             |
| c762 | 19:45:10.71 | –14:53:19.8 | 19.035 | 0.010      | 1.153 | 0.014          | 0.398  | 0.019             |
| c763 | 19:45:13.20 | –14:52:07.1 | 19.034 | 0.008      | 1.388 | 0.015          | 0.493  | 0.018             |
| c764 | 19:45:21.41 | –14:49:21.7 | 19.086 | 0.009      | 1.194 | 0.016          | 0.472  | 0.018             |
| c765 | 19:45:19.39 | –14:49:16.5 | 19.029 | 0.008      | 1.313 | 0.013          | 0.498  | 0.016             |
| c766 | 19:45:03.68 | –14:55:28.9 | 19.101 | 0.008      | 1.106 | 0.014          | 0.370  | 0.018             |
| c767 | 19:45:00.25 | –14:49:39.5 | 19.049 | 0.010      | 1.549 | 0.021          | 0.540  | 0.020             |
| c768 | 19:45:05.02 | –14:49:00.2 | 19.084 | 0.011      | 1.377 | 0.020          | 0.493  | 0.021             |
| c769 | 19:44:58.98 | –14:51:02.7 | 18.968 | 0.021      | 1.172 | 0.037          | 0.560  | 0.033             |
| c770 | 19:45:04.73 | –14:48:42.7 | 19.151 | 0.010      | 1.179 | 0.018          | 0.393  | 0.036             |
| c771 | 19:45:03.54 | –14:51:08.5 | 19.097 | 0.009      | 1.411 | 0.018          | 0.525  | 0.017             |
| c772 | 19:45:03.28 | –14:50:00.2 | 19.158 | 0.011      | 1.267 | 0.024          | 0.514  | 0.024             |
| c773 | 19:45:06.13 | –14:51:13.3 | 19.066 | 0.009      | 1.423 | 0.014          | 0.518  | 0.019             |
| c774 | 19:45:08.83 | –14:50:49.0 | 19.176 | 0.013      | 1.284 | 0.032          | 0.392  | 0.025             |
| c775 | 19:45:01.92 | –14:50:33.0 | 19.093 | 0.009      | 1.472 | 0.017          | 0.444  | 0.016             |
| c776 | 19:45:18.12 | –14:59:51.4 | 19.120 | 0.008      | 1.215 | 0.012          | 0.424  | 0.017             |
| c777 | 19:44:59.14 | –14:51:52.4 | 19.070 | 0.009      | 1.315 | 0.015          | 0.499  | 0.024             |
| c778 | 19:45:09.77 | –14:49:49.6 | 19.121 | 0.008      | 1.282 | 0.015          | 0.486  | 0.017             |
| c779 | 19:45:01.90 | –14:54:12.5 | 19.119 | 0.008      | 1.665 | 0.020          | 0.383  | 0.019             |
| c780 | 19:44:58.80 | –14:55:55.0 | 19.125 | 0.008      | 1.297 | 0.013          | 0.573  | 0.017             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c781 | 19:45:10.76 | –14:51:52.3 | 19.134 | 0.009      | 1.319 | 0.016          | 0.513  | 0.022             |
| c782 | 19:45:08.88 | –14:57:44.5 | 19.078 | 0.007      | 1.500 | 0.012          | 0.469  | 0.016             |
| c783 | 19:45:07.68 | –14:49:07.1 | 19.203 | 0.011      | 1.306 | 0.029          | 0.488  | 0.027             |
| c784 | 19:45:15.30 | –14:52:00.0 | 19.146 | 0.009      | 1.301 | 0.014          | 0.530  | 0.018             |
| c785 | 19:45:03.03 | –14:50:51.7 | 18.976 | 0.015      | 1.573 | 0.021          | 0.547  | 0.025             |
| c786 | 19:45:06.86 | –14:49:19.3 | 19.143 | 0.010      | 1.334 | 0.022          | 0.556  | 0.027             |
| c787 | 19:45:06.38 | –14:48:26.7 | 19.199 | 0.009      | 1.278 | 0.017          | 0.479  | 0.020             |
| c788 | 19:45:04.08 | –14:54:36.4 | 19.172 | 0.009      | 1.463 | 0.017          | 0.411  | 0.019             |
| c789 | 19:45:10.72 | –14:48:31.3 | 19.214 | 0.017      | 1.445 | 0.035          | 0.430  | 0.029             |
| c790 | 19:44:58.75 | –14:50:41.4 | 19.196 | 0.012      | 1.151 | 0.020          | 0.427  | 0.022             |
| c791 | 19:45:01.17 | –14:50:26.5 | 19.167 | 0.022      | 1.188 | 0.029          | 0.515  | 0.032             |
| c792 | 19:45:02.62 | –14:49:56.1 | 19.181 | 0.018      | 1.622 | 0.039          | 0.399  | 0.037             |
| c793 | 19:45:02.27 | –14:50:03.7 | 19.179 | 0.009      | 1.259 | 0.017          | 0.504  | 0.019             |
| c794 | 19:45:16.31 | –14:53:42.1 | 19.214 | 0.007      | 1.159 | 0.012          | 0.401  | 0.017             |
| c795 | 19:45:19.38 | –14:48:40.5 | 19.163 | 0.014      | 1.354 | 0.019          | 0.500  | 0.024             |
| c796 | 19:45:23.22 | –14:55:09.9 | 19.195 | 0.008      | 1.567 | 0.016          | 0.395  | 0.019             |
| c797 | 19:45:15.78 | –14:50:56.7 | 19.294 | 0.008      | 1.123 | 0.018          | 0.444  | 0.020             |
| c798 | 19:45:03.04 | –14:50:14.5 | 19.147 | 0.020      | 1.226 | 0.026          | 0.417  | 0.030             |
| c799 | 19:45:09.11 | –14:48:50.2 | 19.281 | 0.020      | 1.274 | 0.037          | 0.581  | 0.026             |
| c800 | 19:45:07.61 | –14:49:17.0 | 19.273 | 0.011      | 1.255 | 0.019          | 0.490  | 0.023             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c801 | 19:45:15.89 | –14:49:29.6 | 19.236 | 0.009      | 1.634 | 0.020          | 0.455  | 0.017             |
| c802 | 19:45:00.18 | –14:49:28.0 | 19.333 | 0.015      | 1.145 | 0.031          | 0.576  | 0.028             |
| c803 | 19:44:59.50 | –14:53:49.4 | 19.219 | 0.009      | 1.381 | 0.015          | 0.423  | 0.019             |
| c804 | 19:45:14.85 | –14:55:16.3 | 19.256 | 0.008      | 1.463 | 0.014          | 0.436  | 0.017             |
| c805 | 19:45:11.10 | –14:49:42.8 | 19.357 | 0.013      | 1.324 | 0.028          | 0.489  | 0.025             |
| c806 | 19:45:02.46 | –14:58:02.7 | 19.265 | 0.008      | 1.462 | 0.014          | 0.467  | 0.017             |
| c807 | 19:45:12.46 | –14:49:20.0 | 19.276 | 0.015      | 1.146 | 0.019          | 0.430  | 0.024             |
| c808 | 19:45:06.49 | –14:56:51.4 | 19.346 | 0.009      | 1.181 | 0.014          | 0.372  | 0.019             |
| c809 | 19:45:21.23 | –14:48:32.2 | 19.350 | 0.010      | 1.215 | 0.018          | 0.359  | 0.020             |
| c810 | 19:45:01.35 | –15:01:25.0 | 19.333 | 0.009      | 1.206 | 0.015          | 0.306  | 0.025             |
| c811 | 19:44:57.75 | –14:53:15.6 | 19.330 | 0.011      | 1.359 | 0.018          | 0.536  | 0.020             |
| c812 | 19:45:02.98 | –14:50:54.5 | 19.267 | 0.011      | 1.745 | 0.021          | 0.422  | 0.025             |
| c813 | 19:45:04.26 | –14:54:29.6 | 19.337 | 0.011      | 1.559 | 0.022          | 0.477  | 0.021             |
| c814 | 19:45:02.32 | –14:50:51.6 | 19.354 | 0.009      | 1.357 | 0.018          | 0.493  | 0.027             |
| c815 | 19:45:04.62 | –14:50:36.1 | 19.358 | 0.011      | 1.150 | 0.019          | 0.396  | 0.023             |
| c816 | 19:45:02.04 | –14:48:37.4 | 19.415 | 0.015      | 1.153 | 0.031          | 0.493  | 0.023             |
| c817 | 19:45:09.10 | –14:51:59.8 | 19.368 | 0.009      | 1.183 | 0.015          | 0.604  | 0.024             |
| c818 | 19:45:03.63 | –14:57:40.4 | 19.356 | 0.009      | 1.187 | 0.013          | 0.344  | 0.017             |
| c819 | 19:45:24.17 | –14:56:03.8 | 19.251 | 0.011      | 1.664 | 0.017          | 0.417  | 0.018             |
| c820 | 19:45:00.78 | –14:50:35.7 | 19.302 | 0.015      | 1.290 | 0.019          | 0.530  | 0.020             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c821 | 19:45:02.32 | –14:48:54.9 | 19.362 | 0.011      | 1.417 | 0.021          | 0.464  | 0.021             |
| c822 | 19:45:06.58 | –14:50:17.2 | 19.396 | 0.013      | 1.662 | 0.031          | 0.468  | 0.027             |
| c823 | 19:45:14.65 | –14:58:22.6 | 19.373 | 0.010      | 1.438 | 0.020          | 0.657  | 0.024             |
| c824 | 19:45:19.81 | –14:57:03.4 | 19.362 | 0.010      | 1.237 | 0.017          | 0.408  | 0.021             |
| c825 | 19:45:10.83 | –14:49:32.1 | 19.430 | 0.012      | 1.235 | 0.022          | 0.467  | 0.023             |
| c826 | 19:45:08.22 | –14:48:42.6 | 19.405 | 0.013      | 1.377 | 0.022          | 0.490  | 0.025             |
| c827 | 19:45:07.81 | –14:52:07.4 | 19.366 | 0.013      | 1.168 | 0.020          | 0.430  | 0.024             |
| c828 | 19:45:19.91 | –14:51:33.5 | 19.312 | 0.008      | 1.603 | 0.015          | 0.461  | 0.019             |
| c829 | 19:45:22.61 | –14:49:15.8 | 19.407 | 0.013      | 1.127 | 0.018          | 0.499  | 0.018             |
| c830 | 19:45:01.78 | –14:50:13.8 | 19.445 | 0.016      | 1.161 | 0.022          | 0.427  | 0.030             |
| c831 | 19:44:58.61 | –14:48:46.8 | 19.385 | 0.013      | 1.814 | 0.030          | 0.392  | 0.028             |
| c832 | 19:44:59.15 | –14:53:43.2 | 19.401 | 0.011      | 1.517 | 0.018          | 0.525  | 0.019             |
| c833 | 19:45:01.53 | –14:48:26.4 | 19.444 | 0.017      | 1.641 | 0.026          | 0.453  | 0.028             |
| c834 | 19:45:00.01 | –14:53:22.4 | 19.444 | 0.011      | 1.358 | 0.018          | 0.516  | 0.022             |
| c835 | 19:45:09.55 | –14:52:33.8 | 19.474 | 0.012      | 1.360 | 0.027          | 0.556  | 0.024             |
| c836 | 19:45:04.02 | –14:50:44.0 | 19.419 | 0.015      | 1.222 | 0.018          | 0.440  | 0.020             |
| c837 | 19:45:07.58 | –14:48:59.7 | 19.485 | 0.012      | 1.189 | 0.021          | 0.386  | 0.026             |
| c838 | 19:45:18.10 | –14:49:05.5 | 19.393 | 0.010      | 1.683 | 0.017          | 0.452  | 0.020             |
| c839 | 19:44:58.90 | –14:51:07.5 | 19.509 | 0.013      | 1.565 | 0.026          | 0.474  | 0.025             |
| c840 | 19:45:15.25 | –14:50:57.9 | 19.516 | 0.011      | 1.317 | 0.018          | 0.484  | 0.022             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c841 | 19:45:13.51 | –14:51:46.4 | 19.473 | 0.011      | 1.744 | 0.021          | 0.403  | 0.026             |
| c842 | 19:45:02.73 | –14:53:00.4 | 19.602 | 0.013      | 1.137 | 0.023          | 0.424  | 0.026             |
| c843 | 19:45:01.05 | –14:49:02.8 | 19.618 | 0.020      | 1.133 | 0.034          | 0.342  | 0.033             |
| c844 | 19:44:58.99 | –14:53:21.6 | 19.584 | 0.012      | 1.246 | 0.022          | 0.379  | 0.025             |
| c845 | 19:45:15.12 | –14:49:36.7 | 19.612 | 0.011      | 1.255 | 0.018          | 0.459  | 0.022             |
| c846 | 19:45:05.38 | –14:49:55.3 | 19.574 | 0.015      | 1.377 | 0.022          | 0.554  | 0.025             |
| c847 | 19:45:08.05 | –14:48:26.6 | 19.642 | 0.014      | 1.168 | 0.024          | 0.311  | 0.026             |
| c848 | 19:45:11.08 | –14:50:33.0 | 19.664 | 0.012      | 1.187 | 0.021          | 0.478  | 0.023             |
| c849 | 19:45:11.21 | –14:50:55.8 | 19.742 | 0.017      | 1.185 | 0.028          | 0.409  | 0.032             |
| c850 | 19:45:07.04 | –14:50:01.5 | 19.726 | 0.014      | 1.478 | 0.024          | 0.494  | 0.024             |
| c851 | 19:45:18.83 | –14:50:35.7 | 19.751 | 0.013      | 1.132 | 0.018          | 0.593  | 0.027             |
| c852 | 19:45:02.71 | –14:51:39.7 | 19.726 | 0.017      | 1.293 | 0.025          | 0.734  | 0.034             |
| c853 | 19:45:16.74 | –14:54:29.5 | 19.757 | 0.015      | 1.414 | 0.029          | 0.348  | 0.027             |
| c854 | 19:45:00.25 | –14:54:21.9 | 19.831 | 0.014      | 1.204 | 0.022          | 0.484  | 0.025             |
| c855 | 19:45:01.28 | –14:54:32.7 | 19.823 | 0.016      | 1.235 | 0.027          | 0.581  | 0.032             |
| c856 | 19:45:05.07 | –14:51:08.6 | 19.648 | 0.032      | 1.737 | 0.044          | 0.377  | 0.051             |
| c857 | 19:44:59.11 | –14:51:58.4 | 19.804 | 0.012      | 1.858 | 0.024          | 0.449  | 0.025             |
| c858 | 19:45:25.41 | –14:49:09.8 | 19.825 | 0.018      | 1.511 | 0.027          | 0.397  | 0.027             |
| c859 | 19:44:57.95 | –14:50:45.3 | 19.949 | 0.022      | 1.215 | 0.041          | 0.365  | 0.040             |
| c860 | 19:45:00.63 | –14:52:28.2 | 19.825 | 0.029      | 1.381 | 0.037          | 0.514  | 0.031             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c861 | 19:45:05.67 | –14:53:12.1 | 20.006 | 0.015      | 1.177 | 0.023          | 0.447  | 0.026             |
| c862 | 19:45:06.61 | –14:52:28.0 | 20.026 | 0.021      | 1.606 | 0.043          | 0.459  | 0.037             |
| c863 | 19:45:18.36 | –14:58:11.4 | 20.046 | 0.014      | 1.179 | 0.022          | 0.451  | 0.027             |
| c864 | 19:45:06.28 | –14:48:59.7 | 20.103 | 0.023      | 1.640 | 0.038          | 0.708  | 0.033             |
| c865 | 19:45:04.01 | –14:54:39.2 | 20.235 | 0.016      | 1.545 | 0.038          | 0.717  | 0.037             |
| c866 | 19:45:00.62 | –14:51:37.1 | 20.320 | 0.021      | 1.269 | 0.035          | 0.337  | 0.049             |
| c867 | 19:45:05.32 | –14:49:53.0 | 20.691 | 0.034      | 1.430 | 0.058          | 0.625  | 0.061             |
| c868 | 19:45:33.93 | –14:59:26.3 | 18.659 | 0.007      | 1.524 | 0.011          | 0.463  | 0.013             |
| c869 | 19:45:36.57 | –14:52:25.9 | 18.756 | 0.006      | 1.288 | 0.010          | 0.569  | 0.014             |
| c870 | 19:45:55.63 | –14:56:19.4 | 18.814 | 0.006      | 1.165 | 0.010          | 0.493  | 0.014             |
| c871 | 19:45:54.07 | –14:54:59.9 | 18.915 | 0.009      | 1.157 | 0.019          | 0.454  | 0.022             |
| c872 | 19:45:55.04 | –14:58:26.8 | 18.826 | 0.007      | 1.438 | 0.011          | 0.368  | 0.015             |
| c873 | 19:45:38.48 | –14:50:58.6 | 18.819 | 0.006      | 1.478 | 0.012          | 0.577  | 0.014             |
| c874 | 19:45:44.26 | –14:50:04.3 | 18.916 | 0.007      | 1.109 | 0.010          | 0.421  | 0.016             |
| c875 | 19:45:54.05 | –14:53:52.8 | 18.857 | 0.007      | 1.452 | 0.012          | 0.483  | 0.014             |
| c876 | 19:45:43.69 | –15:01:04.4 | 18.826 | 0.007      | 1.546 | 0.013          | 0.315  | 0.015             |
| c877 | 19:45:27.58 | –14:51:54.3 | 19.001 | 0.010      | 1.155 | 0.018          | 0.478  | 0.017             |
| c878 | 19:45:45.58 | –14:53:03.1 | 18.973 | 0.007      | 1.264 | 0.012          | 0.547  | 0.015             |
| c879 | 19:45:37.26 | –14:48:44.7 | 19.019 | 0.007      | 1.160 | 0.015          | 0.406  | 0.018             |
| c880 | 19:45:50.86 | –14:57:42.4 | 18.896 | 0.006      | 1.615 | 0.011          | 0.358  | 0.014             |

Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c881 | 19:45:28.39 | –14:54:46.6 | 18.953 | 0.007      | 1.701 | 0.015          | 0.356  | 0.018             |
| c882 | 19:45:29.19 | –14:54:14.0 | 18.987 | 0.007      | 1.725 | 0.016          | 0.472  | 0.017             |
| c883 | 19:45:27.88 | –14:51:08.4 | 19.053 | 0.008      | 1.384 | 0.016          | 0.512  | 0.017             |
| c884 | 19:45:35.87 | –14:58:49.4 | 19.093 | 0.011      | 1.146 | 0.018          | 0.372  | 0.016             |
| c885 | 19:45:28.76 | –14:52:21.6 | 19.053 | 0.008      | 1.619 | 0.015          | 0.537  | 0.017             |
| c886 | 19:45:50.74 | –14:51:16.2 | 19.092 | 0.007      | 1.556 | 0.014          | 0.491  | 0.017             |
| c887 | 19:45:33.76 | –14:52:20.4 | 19.212 | 0.008      | 1.133 | 0.013          | 0.427  | 0.019             |
| c888 | 19:45:30.97 | –14:48:31.3 | 19.208 | 0.010      | 1.123 | 0.015          | 0.431  | 0.017             |
| c889 | 19:45:44.69 | –14:53:41.5 | 19.177 | 0.009      | 1.487 | 0.015          | 0.514  | 0.021             |
| c890 | 19:45:47.07 | –14:48:39.3 | 19.254 | 0.008      | 1.170 | 0.013          | 0.441  | 0.018             |
| c891 | 19:45:48.11 | –14:57:11.7 | 19.305 | 0.009      | 1.134 | 0.015          | 0.388  | 0.020             |
| c892 | 19:45:42.94 | –14:59:12.4 | 19.304 | 0.009      | 1.369 | 0.015          | 0.472  | 0.017             |
| c893 | 19:45:32.22 | –14:50:24.0 | 19.365 | 0.009      | 1.417 | 0.017          | 0.590  | 0.019             |
| c894 | 19:45:33.41 | –14:50:47.1 | 19.434 | 0.010      | 1.231 | 0.015          | 0.467  | 0.019             |
| c895 | 19:45:43.49 | –14:53:21.0 | 19.495 | 0.014      | 1.243 | 0.025          | 0.486  | 0.027             |
| c896 | 19:45:27.68 | –14:55:50.4 | 19.546 | 0.011      | 1.338 | 0.018          | 0.607  | 0.023             |
| c897 | 19:45:29.14 | –14:50:12.0 | 19.901 | 0.013      | 1.149 | 0.020          | 0.450  | 0.023             |
| c898 | 19:45:31.48 | –14:50:42.7 | 20.627 | 0.025      | 1.713 | 0.051          | 0.391  | 0.041             |
| c899 | 19:46:05.45 | –14:50:34.6 | 18.544 | 0.005      | 1.104 | 0.007          | 0.342  | 0.011             |
| c900 | 19:46:07.85 | –14:53:57.7 | 19.162 | 0.008      | 1.302 | 0.012          | 0.438  | 0.016             |



Table 2—Continued

| id   | RA          | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c901 | 19:46:10.93 | –14:54:01.8 | 19.078 | 0.007      | 1.662 | 0.012          | 0.428  | 0.019             |
| c902 | 19:46:10.60 | –14:58:48.1 | 19.286 | 0.009      | 1.388 | 0.014          | 0.654  | 0.017             |
| c903 | 19:46:22.03 | –14:55:14.2 | 19.838 | 0.011      | 1.428 | 0.020          | 0.334  | 0.024             |
| c904 | 19:46:18.98 | –15:02:28.8 | 20.321 | 0.025      | 1.541 | 0.049          | 0.323  | 0.045             |

Table 2. C stars in NGC 6822

| id   | RA          | Dec         | I      | $\sigma_I$ | R-I   | $\sigma_{R-I}$ | CN-TiO | $\sigma_{CN-TiO}$ |
|------|-------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| c001 | 19:43:52.57 | -14:40:58.8 | 18.724 | 0.006      | 1.214 | 0.009          | 0.469  | 0.013             |
| c002 | 19:43:52.69 | -14:41:40.0 | 18.998 | 0.007      | 1.147 | 0.010          | 0.424  | 0.013             |
| c003 | 19:43:56.96 | -14:43:01.8 | 19.280 | 0.008      | 1.419 | 0.013          | 0.457  | 0.016             |
| c004 | 19:43:54.52 | -14:43:35.5 | 19.667 | 0.010      | 1.255 | 0.015          | 0.423  | 0.023             |
| c005 | 19:43:58.53 | -14:37:44.2 | 20.745 | 0.022      | 1.624 | 0.046          | 0.403  | 0.043             |
| c006 | 19:44:28.08 | -14:37:58.2 | 18.163 | 0.005      | 1.177 | 0.008          | 0.371  | 0.009             |
| c007 | 19:44:19.70 | -14:40:59.5 | 18.420 | 0.005      | 1.175 | 0.007          | 0.504  | 0.010             |
| c008 | 19:44:02.54 | -14:44:40.1 | 18.458 | 0.005      | 1.257 | 0.008          | 0.531  | 0.011             |
| c009 | 19:44:21.12 | -14:44:24.2 | 18.542 | 0.006      | 1.266 | 0.009          | 0.370  | 0.011             |
| c010 | 19:44:10.33 | -14:46:55.1 | 18.724 | 0.006      | 1.425 | 0.011          | 0.520  | 0.012             |
| c011 | 19:44:01.93 | -14:41:09.6 | 19.047 | 0.008      | 1.300 | 0.013          | 0.453  | 0.014             |
| c012 | 19:44:26.58 | -14:43:32.7 | 19.023 | 0.007      | 1.480 | 0.012          | 0.456  | 0.014             |
| c013 | 19:44:26.36 | -14:43:29.3 | 19.110 | 0.008      | 1.141 | 0.012          | 0.334  | 0.015             |
| c014 | 19:44:18.81 | -14:47:21.9 | 19.027 | 0.007      | 1.513 | 0.012          | 0.497  | 0.014             |
| c015 | 19:44:19.68 | -14:45:04.2 | 19.095 | 0.010      | 1.314 | 0.016          | 0.448  | 0.017             |
| c016 | 19:44:26.55 | -14:45:41.3 | 19.079 | 0.010      | 1.629 | 0.018          | 0.498  | 0.020             |
| c017 | 19:44:17.54 | -14:48:04.8 | 19.145 | 0.010      | 1.109 | 0.014          | 0.450  | 0.017             |
| c018 | 19:44:20.37 | -14:46:51.1 | 19.150 | 0.008      | 1.280 | 0.014          | 0.502  | 0.017             |
| c019 | 19:44:24.86 | -14:43:22.6 | 19.151 | 0.009      | 1.273 | 0.014          | 0.481  | 0.020             |

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<http://arXiv.org/ps/astro-ph/0110026v2>

Table 3. C stars outside of the CFH12K field

| id    | RA           | Dec         | I      | $\sigma_I$ | R–I   | $\sigma_{R-I}$ | CN–TiO | $\sigma_{CN-TiO}$ |
|-------|--------------|-------------|--------|------------|-------|----------------|--------|-------------------|
| C1001 | 19:43: 25.59 | –14:56:49.5 | 19.289 | 0.032      | 1.434 | 0.065          | 0.266  | 0.058             |
| C1002 | 19:43: 25.80 | –14:59:06.8 | 19.156 | 0.035      | 1.205 | 0.100          | 0.248  | 0.096             |
| C1003 | 19:43: 29.44 | –14:46:47.3 | 19.522 | 0.045      | 1.351 | 0.092          | 0.467  | 0.088             |

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submitted to AJ

# The extent of NGC 6822 revealed by its C star population

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## ABSTRACT

Using the CFH12K camera, we apply the four band photometric technique to identify 904 carbon stars in an area  $28' \times 42'$  centered on NGC 6822. A few C stars, outside of this area, were also discovered with the Las Campanas Swope Telescope. The NGC 6822 C star population has  $\langle I \rangle = 19.26$  leading to a  $\langle M_I \rangle = -4.70$ , a value essentially identical to the mean magnitude obtained for the C stars in IC 1613. Contrary to stars highlighting the optical image of NGC 6822, C stars are seen at large radial distances and trace a huge slightly elliptical halo which does not coincide with the huge HI cloud surrounding NGC 6822. The previously unknown stellar component of NGC 6822 has a exponential scale length of  $3.0' \pm 0.1'$  and can be traced to five scale lengths. The C/M ratio of NGC 6822 is evaluated to be  $1.0 \pm 0.2$ .

*Subject headings:* galaxies: individual (NGC 6822) — galaxies: stellar content; structure  
— stars: carbon

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<sup>1</sup>Visiting Observers, Canada-France-Hawaii Telescope, operated by the National Research Council of Canada, le Centre National de la Recherche de France and the University of Hawaii.

## 1. INTRODUCTION

NGC 6822 is a barred dwarf galaxy of type IrIV-V (van den Bergh 1968), a classification similar to the Small Magellanic Cloud. Hubble (1925) discovered Cepheids in NGC 6822 and could conclude that it is a relatively nearby galaxy. NGC 6822 has recently been the subject of detailed multi-color investigation by Gallart, Aparicio & Vílchez (1996). We adopt, for NGC 6822, their determined color excess  $E(B-V) = 0.24 \pm 0.03$  and true modulus  $(m - M)_o = 23.49 \pm 0.08$ . The abundance of two supergiants of NGC 6822 has recently been determined, from high resolution spectroscopy, by Venn et al. (2001). We adopt their estimate,  $[Fe/H] = -0.49$ , for the metallicity of NGC 6822.

NGC 6822 is nearly unique among the Local Group galaxies by having a huge hydrogen envelope, several times bigger than its optical core (Robert 1972, Gottesman & Weliachew 1977, de Blok & Walter 2000). IC 1613 (Lake & Skillman 1989), IC 10 the highly reddened galaxy (Huchtmeier 1979) and to a lesser extent, NGC 3109 (Barnes & de Blok 2001) have also a similar HI envelope. The global structure of NGC 6822 was first surveyed by Hodge (1977) and in more detail by Hodge et al. (1991) who could trace the galaxy to  $10'$  from its center. Hodge adopted the point of view that the outer structure of NGC 6822 is circular rather than following the shape of the bar. Because NGC 6822 is at a rather low Galactic latitude,  $b = -18.4^\circ$ , the low density periphery of the galaxy is masked by the foreground stars. The exact size of NGC 6822 is rather difficult to establish simply from star counts. The NASA/IPAC Extragalactic Database (NED) quotes a dimension of  $15.5' \times 13.5'$  which is much smaller than the HI envelope mentioned above but is quite in line with Hodge's study.

All photometric surveys of NGC 6822, with the exception of the one by Hutchings, Cavanagh & Bianchi (1999) have targeted the obvious central part of the galaxy. Hutchings et al. (1999) have obtained HST photometry in two small regions located  $\sim 2$  kpc from the optical center of NGC 6822. They detected the presence of main sequence stars extending to  $2 M_\odot$  in the western field and suggested that this population might be the result of a tidal event. The presence of an hydrogen tidal arm was proposed by the HI map of de Blok & Walter (2000).

Cook, Aaronson & Norris (1986), who pioneered the photometric technique we are now using, were the first to target NGC 6822 in search of C stars. They observed two small ( $1.5' \times 2.5'$ ) fields located along the central bar on opposite sides, a few arcminutes from its geometrical center. Some fifty C stars were identified. Follow-up spectroscopy confirmed the nature of the C stars (Aaronson et al. 1984) and led to the discovery of the first S star in NGC 6822 (Aaronson, Mould & Cook 1985). That investigation observed barely 3% of the area of NGC 6822, if we assume the dimensions given by NED.

Battinelli & Demers (2000) have obtained a preliminary relation linking the number of C stars in a galaxy with its integrated absolute visual magnitude. This relation predicts that galaxies with  $M_V < -15$  would have more than a few hundred C stars. NGC 6822 with  $M_V = -15.2$  (Mateo 1998) should have at least 500 C stars. Such large number would provide sufficient statistics to

investigate the extent of NGC 6822. A survey of the periphery is particularly interesting for a galaxy such as NGC 6822. Indeed, tidal interaction has been proposed (de Blok & Walter 2000) to explain the asymmetric shape of the extended hydrogen disc. It is reasonable to expect that the spatial distribution (and kinematics) of stars as old as  $\sim 3$  Gyr could also have been influenced by the presumed tidal interaction. On the other hand, the huge HI envelope, currently visible, implies that, if a gravitational interaction took place, it must not have been strong enough to drastically disturb the gas. In this respect, C stars have a distinctive advantage, over deep multi color surveys, because the foreground contribution is zero!

On a more global scale, in order to compare the C star population of different galaxies, one must be careful to compare homogeneous samples. That is, not to collect from the literature lists of C stars identified spectroscopically or from different photometric criteria. For example, the  $B_j - R$  criterion used by Totten & Irwin (1998), Whitelock, Irwin & Catchpole (1996) or Kunkel, Irwin & Demers (1997), to select C star candidates for spectroscopy, is not at all equivalent to the (CN – TiO) criterion adopted by Brewer, Richer & Crabtree (1995) and our series of investigations. This is why this paper follows strictly the photometric criteria previously used. In this way, the same C star population will be revealed in a number of dwarf galaxies of different properties.

## 2. OBSERVATIONS AND DATA REDUCTION

### 2.1. The Las Campanas data

The NGC 6822 survey employs two set of observations obtained by rather different telescopes and with different procedures. The Swope telescope, on Las Campanas, was used in October 1999 to secure images of NGC 6822 in Kron-Cousins  $R_{KC}$ , CN (810 nm) and TiO (770 nm) filters. The goal of this brief survey was to identify C stars, from the color-color diagram, for follow-up spectroscopy. Thus, it was deemed unnecessary to acquire I images. A pseudo i magnitude was calculated by adding the CN and TiO magnitudes. The narrow interference filters, used here, have a FWHM of 30 nm and are the ones used in our previous surveys (Albert et al. 2000; Battinelli & Demers 2000; Demers & Battinelli 2002). The  $2048 \times 2048$  SITe#1 CCD yields a field of view of  $23.7' \times 23.7'$ . Two slightly overlapping fields were observed for a total of five hours. Dome flats were obtained through each filters. Calibration to the standard R system was done with Landolt's (1992) equatorial standards observed during the course of the nights. This was done simply to set the magnitude zero point, not as an absolute color calibration. No calibration is done for the CN and TiO filters because we are interested only in the CN – TiO color index and their exposure times are always equal.

After the standard prereduction of trimming, bias subtraction, and sky flat-fielding, the photometric reductions were done by fitting model point-spread functions (PSFs) using DAOPHOT/ALLSTAR/ALLFRAME series of programs (Stetson 1987, 1994) in the following way: we combine, using MONTAGE2, all the images of the target irrespective of the filter to produce a deep image devoid of cosmic rays.

ALLSTAR was then used on this deep image to derive a list of stellar images and produce a second image where the stars, found in the first pass, are removed. This subtracted image is also processed through ALLSTAR to find faint stars missed in the first pass. The second list of stars is added to the first one. The final list is then used for the analysis of the individual frames using ALLFRAME. This program fits model PSFs to stellar objects in all the frames simultaneously. The journal of these observations is presented in Table 1.

## 2.2. The CFHT data

NGC 6822 was also observed with the CFH12K at the beginning of one night in September 2000. The camera consists in a 12K×8K pixel mosaic covering a field of  $42' \times 28'$ . Each pixel corresponding to 0.206 arcsec. Images were obtained through Mould I,R filters and CN,TiO filters. The CFHT narrow band filters have, however, about half the bandwidth of the Las Campanas ones, thus requiring relatively longer exposure times. The journal of these observations is also given in Table 1.

Preanalysis of our data was done with the FITS Larges Images Processing Software (FLIPS) package at the CFHT Headquarters. It is a program specially designed to handle mosaic data. FLIPS corrects for the bias, dark and flat, by averaging the good exposures and rejecting the overexposed and otherwise incorrect frames, for each of the 12 CCD fields of the mosaic. It also takes into account the mask of bad pixels. A nice feature of FLIPS, compared to standard pre-reduction packages, is that it normalizes the background sky values to the most sensitive CCD of the mosaic. This results in 12 fields that are comparable and on the same magnitude scale.

There were a fringe patterns in a few CCD I frames, but no correction for the fringing was done. FLIPS allows us to correct for the fringing effect but “no correction at all” was deemed the best option. Trying to correct for that cosmetic problem often increases the noise on the frame. On a small scale, fringing was fairly constant and in the end, our analysis packages had no difficulty accounting for that anomaly.

Data reduction was done with DAOPHOT/ALLSTAR, in a way similar to the reduction of the Las Campanas data.

### 2.2.1. The CFH12K calibration

The CFHT observations were unfortunately obtained under non photometric conditions, even though the seeing was less than one arc second. We therefore had to used local stars with published magnitudes and colors to calibrate our photometry. This, however, presented a challenge because very few publications present R–I colors. We were fortunate to obtain the NGC 6822 photometry of Gallart et al. (1996) which satisfies our needs entirely.

Using 166 stars, with colors in the range  $0.0 < (R - I) < 2.0$ , we obtained the following transformation equations:

$$R = r + 7,643 \pm 0.022 + 0.0040 \pm 0.0196(R - I)$$

$$I = i + 7.200 \pm 0.009 + 0.0126 \pm 0.0128(R - I)$$

The  $r$  and  $i$  magnitudes are the instrumental magnitudes calibrated to Gallart et al. (1996) photometry. We thus conclude that there is no color term and that the Mould filters provide an excellent match to the Kron-Cousins magnitudes.

The non-photometric conditions oblige us to set a zero point to the CN–TiO colors, even though exposures in each filter were of the same length. We do so by following Brewer et al. (1996) and setting the mean of the (CN–TiO) = 0.00 for all stars with  $(R-I)_o < 0.45$  since hot stars are expected to have featureless spectra in the CN or TiO regions. Brewer et al. (1996) used V–I colors, the R–I limit adopted here takes into account the relationship between the two indices. Photometry of each of the twelve CCDs was thus calibrated using several hundred stars in each CCD. Stars in the color range  $0.2 < (R - I) < 0.65$  were selected for this zero point adjustment, taking into account the  $E(R-I) = 0.20$ .

### 3. RESULTS

#### 3.1. The color-magnitude diagram

The global color magnitude diagram, (CFH12K data) containing some 65000 stars, is shown in Figure 1. Only stars with small photometric errors are plotted here. This explains why the fainter limits abruptly appears at  $I \approx 21.5$ , *two magnitudes below the red giant tip*. We restrict our analysis to stars for which the square root of the quadratic sum of the errors on R–I and CN–TiO is less than 0.100. This limit is somewhat arbitrary but is justified because the inclusion of numerous fainter stars pollutes enormously the color-color diagram without increasing the number of carbon stars. The vertical ridge, at  $(R - I) \approx 0.55$  is an interesting feature usually present in deep CMD fields toward low Galactic latitudes. The blue side of this ridge corresponds to the main sequence turnoff of field G dwarfs. If we adopt  $(R - I)_o \approx 0.35$  for G5 dwarfs (Cox 2000), then the  $E(R - I)$  toward NGC 6822 would be  $\approx 0.20$ , a value identical to the one proposed by Gallart et al. (1996)

We can see right away, without the analysis of the space distribution of the C stars, that NGC 6822 extends much further than its optical image makes us believe. Figure 2 displays the CMD of the periphery of our  $42' \times 28'$  field. Only stars farther than  $17.1'$  ( $\sim 2.5$  kpc) from the center of the field are plotted. A weak giant branch is present. The true extent of NGC 6822 is however quite difficult to assess from its CMD because of the heavy foreground contribution by Galactic stars. As we shall see, C stars are valuable in this respect because none are in the foreground!

### 3.2. The color-color diagram

The color-color diagram of the whole CFH12K field of NGC 6822 is presented in Figure 3. 904 stars satisfy our criteria and are called C stars. We define, for the purpose of comparison from galaxies to galaxies, C stars as stars with  $(R - I)_o > 0.90$  and, in the case of narrow CN and TiO filters, stars with  $(CN - TiO) > 0.30$ . This  $(R - I)_o$  limit corresponds to spectral type M0, according to Bessel (1991). Battinelli & Demers (2000) and Aaronson et al. (1985) showed that  $(CN - TiO)$  is very little affected by reddening. This definition is obviously restrictive, one can easily see that on, Fig. 3, there are bluer C stars extending to the lower left of the C star We discuss those bluer stars in section 4.2 The C stars identified, along with their J2000.0 equatorial coordinates, magnitudes and colors, are listed in Table 2, (only the first few stars are given in the paper version). Star c236 is the one spectroscopically confirmed by Aaronson et al. (1984).

### 3.3. Comparison of the Las Campanas and CFHT results

The Las Campanas photometry (LC) yielded 688 C star candidates. A coordinate match with the CFHT candidates shows that only 542 are common to both sets. A comparison of the apparent magnitude of stars common to both sets, displayed in Figure 4, shows that a substantial number of faint C stars are missing from the LC data set. The number of C star candidates, in the LC list, could have been increased by lowering the acceptance criteria based on the photometric errors. We believe, however, that the use of the combined CN and TiO magnitudes to produce a pseudo I magnitude has lowered the photometric quality of I magnitudes compared to R magnitudes of similar brightness. This approach has obviously raised the acceptable magnitude of the LC data set but it has allowed us to identify the C star population of NGC 6822, for follow-up spectroscopy, more than one year before we obtain the CFHT observations confirming the existence of a huge C star population. About 100 stars were identified as C stars in the LC data set but were not retained in the CFHT list. A search and match in the whole CFH12K database revealed that nearly all them can be matched to stars. Some of them are just a little bit too blue to be called C stars or have a  $(CN - TiO)$  index a little too small. The majority, however, can match in position, fainter stars of various colors. This suggests that the LC stars are actually blends. The pixel scale of the Swope telescope CCD is not as good as the one of the CFHT. The LC fields extend further west than the CFH12K mosaic. Three possible C stars outside of the CFH12K field are listed in Table 3. These candidates need to be confirmed by more accurate photometry. They are located on the edge of the Swope Telescope field and their photometric errors are, in some cases, near the limit of rejection.



## 4. DISCUSSION

The mean properties of the carbon star population of NGC 6822 are nearly identical to the one of IC 1613, a dwarf irregular galaxy of lower mass but with a substantial C star population. The mean magnitude and color of the 904 C stars are:  $\langle I \rangle = 19.257$  and  $\langle (R - I) \rangle = 1.368$ , corresponding to  $\langle M_I \rangle = -4.70$  and  $\langle (R - I)_o \rangle = 1.17$ . Albert et al. (2000) quote  $\langle M_I \rangle = -4.69$  and  $\langle (R - I)_o \rangle = 1.18$  for the 195 C stars in IC 1613. The abundance of IC 1613 was estimated, from the color of the tip of the giant branch, by Freedman (1988) to be  $[\text{Fe}/\text{H}] = -1.3$ , a value lower than the adopted metallicity for NGC 6822. This comparison suggests that the metallicity may have little effect on the mean  $M_I$  of a C star population.

### 4.1. The Bolometric magnitude distribution of C stars

Costa & Frogel (1996) were able to determine the bolometric magnitude of C stars in the Large Magellanic Cloud (LMC) from their R, I photometry. Since the newly established metallicity of NGC 6822 (Venn et al. 2001) is quite close to the metallicity of the LMC, we may assume that their equation also applies to the NGC 6822 C stars. Figure 5 displays the bolometric magnitudes of C stars, listed in Table 2, as a function of their  $(R - I)_o$ . Our distribution, when compared to the one of Costa & Frogel (1996) for the LMC, is truncated on the blue side due to our adoption criterion. Figure 5 does show, however, that NGC 6822 does contain one C star brighter than  $M_{bol} = -6.4$ , the limit according to models of Boothroyd, Sackmann & Ahern (1993). That star is c043, a bright (in I) star located near the center of NGC 6822.

### 4.2. Bluer “C stars”

Demers & Battinelli (2002) have recently shown that several spectroscopically identified C stars in the Leo I dwarf spheroidal galaxy are bluer than our adopted  $(R - I)_o$  limit. There could then certainly be a number of bluer C stars in NGC 6822. Indeed, one can easily see on the color-color diagram (Fig. 3) that there is a natural blue extension of the “C star branch”. In order to compare the photometric properties of these stars, with the previously defined C stars, we select, on the color-color diagram, stars in the following box:  $0.8 < (R - I) < 1.1$  and  $(\text{CN} - \text{TiO}) > 0.25$ . 341 stars are in this region of the color-color diagram. As expected, these bluer stars are located on the nearly vertical part of the red giant branch. Figure 6 presents a close-up of the CMD and histograms comparing the magnitude distributions of the two groups of stars. Contrary to redder C stars, which have a narrow range of magnitude, the bluer stars show a large magnitude spread.

### 4.3. The known S star

Aaronson et al. (1985) spectroscopically confirmed the presence of at least one S star in NGC 6822. This star is in our database but its color indices are such that our color-color diagram cannot really distinguish it from M stars. Its magnitude and colors are:  $I = 18.346$ ;  $(R-I) = 1.340$ ;  $(CN-TiO) = 0.056$ . The bolometric magnitude of this S star, using the same relation than for C stars, is  $M_{bol} = -5.90$ . Brewer et al. (1996) found a single S star among their AGB stars with a surprisingly high bolometric magnitude,  $-6.2$ .

In our coordinate system, the J2000.0 coordinates this S star are some 10 arcsec from the ones quoted by Aaronson et al. (1985). They are:  $\alpha = 19^h 45^m 01.3^s$ ,  $\delta = -14^\circ 49' 32.1''$ . There could be other S stars in NGC 6822, spectroscopy would be needed to confirm the nature of the stars lying in between the C and M regions on the color-color diagram.

### 4.4. The spatial distribution of C stars and red giant stars

We display, in Figure 7, the 904 C stars of NGC 6822 over a  $42' \times 28'$  ESO Digital Sky Survey (DSS) Image centered on NGC 6822. C stars reveal that the stellar population of NGC 6822 extends over a much larger volume than its optical image would make us believe. Furthermore, C stars are not restricted to the HI disk, nicely mapped by de Blok & Walter (2000), but are found in a spheroidal halo. Radial velocities will help establishing if C stars follow or not the HI rotation. The surface density profile of the C stars, shown in Figure 8, is well fitted by a power law with a scale length of  $3.0 \pm 0.1$  arcmin, corresponding to 436 pc at the distance of NGC 6822. We assume circular symmetry. The exponential profile can be followed to five scale lengths. This scale length is to be compared with  $112'' \pm 50''$  given by Hodge et al. (1991).

The fact that we find intermediate age stars in the outer halo of a dwarf galaxy is surprising since the halos so far known around dwarf galaxies (Lee 1993, Minniti & Zijlstra 1997, Minniti, Zijlstra, & Alonso 1999, Aparicio & Tikhonov 2000, Aparicio, Tikhonov & Karachentsev 2000) consist of  $\sim 10$  Gyr stars. We must stress, however, that a weak intermediate age population will be missed by a CMD approach since there is no way to distinguish intermediate and old age red giants.

Photometric properties of C stars, close to the center and in the periphery of NGC 6822, appear to be essentially the same. We divide the data into four radial bins to calculate mean magnitudes and mean colors. We find dispersions of  $\pm 0.01$  for  $\langle I \rangle$  and  $\pm 0.02$  for  $\langle (R-I) \rangle$ .

Since Fig. 1 shows a well defined upper giant branch, one can select a representative sample of NGC 6822 giant stars from their position on this CMD. This would represent a mixture of old and intermediate age stars. We select, from the CMD of the whole field, giant stars in a narrow parallelogram in the magnitude range  $19.5 < I < 21.3$  and with the appropriate R-I intervals, slightly variable with magnitude to take into account the sloping giant branch. More than 18000

stars are in this box, including a number of foreground stars. The smoothed surface density map of the giants is presented in Figure 9. No correction for the foreground contribution has been done here. An obvious asymmetry is seen, along the E-W axis, in the inner isodensity contours. The outermost contour, corresponding to a surface density of 13.5 stars per arcmin<sup>2</sup>, is roughly elliptical with an ellipticity of  $e \approx 0.1$  and a position angle of  $PA \approx 60^\circ$ . This is quite different from the orientation of the HI disc ( $PA \approx 125^\circ$ ) and not aligned with the optical bar which is, according to Hodge (1977), at  $PA = 10^\circ \pm 3^\circ$ . The outermost contour has a major axis of  $\sim 23'$  or 3.3 kpc at the distance of NGC 6822. The estimated foreground contribution to giant counts, detailed below, amount to less than 25% of the counts in the outermost contour.

Since it appears that the ellipticity of the halo of NGC 6822 is small in the outer parts and not evident for the inner contours, we decided to neglect it and compute radial counts in circular annuli, like we did for the C stars. However, for red giants, the foreground pollution is not negligible and must be taken into account in the outer parts. We estimate it from star counts in two strips on the eastern and western sides of the CFH12K field. We obtain:  $3.5 \pm 0.2$  stars per arcmin<sup>2</sup>. The scale length, obtained by least-square fit to the middle points of Figure 8, is  $3.3' \pm 0.2$  a value similar to the one obtain from C stars. We can thus conclude that the old and the intermediate age halos have the same size and show no pronounced asymmetry like the hydrogen cloud surrounding NGC 6822.

#### 4.5. The C/M ratio

The size of NGC 6822, relative to our mosaic, is such that it is quite difficult to evaluate the foreground contribution to the M stars seen in the color-color diagram. Furthermore, the fact that NGC 6822 is at a relatively low Galactic latitude makes the problem even worst. We evaluated the foreground by counting M stars (with  $I < 21.0$ ) in two 1000 pixel wide strips on the eastern and western extremities of the field. Their numbers were 746 and 717 respectively. We have of course to assume that the NGC 6822 contribution is negligible in these areas. This is not strictly true since we see a few C stars up to the edge of the field. The total number of M stars ( $I < 21.0$ ) in the whole field is 9930. From the two counts above, we estimate that there are  $8989 \pm 184$  foreground M stars. The number of M stars within NGC 6822 is thus sensibly similar to the number of C stars and equal to  $941 \pm 184$ , taking into account this uncertainty, we obtain a global  $C/M = 1.0 \pm 0.2$ . The huge number of foreground M stars, compared to the NGC 6822 M stars, makes hopeless any attempt to investigate a radial dependence of C/M. One would need a more accurate evaluation of the foreground contribution from star counts in regions outside of our field. The M stars counted are those with spectral type M0 or later that have  $(R-I)_o > 0.90$ .

We are grateful to Carme Gallart to have provided her NGC 6822 photometry to enable us to calibrate the CFH12K data. This project is supported financially, in part, by the Natural Sciences and Engineering Research Council of Canada (S. D.).

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Fig. 1.— Color-magnitude diagram of the whole CFH12K field, centered on NGC 6822.

Fig. 2.— Color-magnitude diagram of the periphery of the field, farther than  $17.1'$  from the center of NGC 6822. We can still see a weak giant branch.

Fig. 3.— Color-color diagram of the  $42' \times 28'$  field, hundreds of C stars are present. Nearly 65000 stars are plotted.

Fig. 4.— I magnitude distribution of the C stars listed in Table 2. The shaded histogram corresponds to the 542 C stars common to both Las Campanas and CFHT data. It reveals the incompleteness of the LC data at faint magnitudes.

Fig. 5.— The bolometric magnitude of C stars as a function of their intrinsic colors.

Fig. 6.— A close-up of the CMD is shown in the upper panel. Dots are the 904 C stars while crosses are the bluer stars on the C stars “branch”. The magnitude distributions of the two groups of stars are compared in the lower panel.

Fig. 7.— C stars are plotted over the image of NGC 6822 from the DSS. The size of the field corresponds to the CFH12K. North is on top and East is on the left. Three C stars, listed in Table 3, are just outside the western limit.

Fig. 8.— Surface density of profiles: the 904 C stars are represented by open circles while the red giants are shown as solid dots. Scale lengths are essentially the same.

Fig. 9.— Smoothed isodensity contours of the red giants brighter than  $I = 21.3$ . No correction has been done for the foreground stars. The orientation and size of the field are like the ones of Figure 7.